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ARCTIC ICE DYNAMICS JOINT EXPERIMENT (AIDJEX) 1975-1976, PHYSIC--ETC(U)

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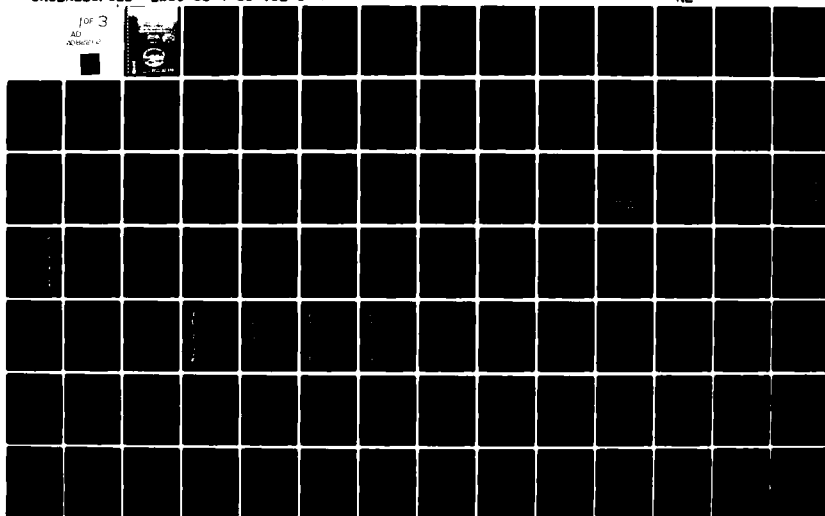
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ARCTIC ICE DYNAMICS JOINT EXPERIMENT 1975-1976,
PHYSICAL OCEANOGRAPHY DATA REPORT
PROFILING CURRENT METER DATA -- CAMP CARIBOU.

Volume 1.

prepared by

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ABSTRACT

ARCTIC ICE DYNAMICS JOINT EXPERIMENT 1975-1976
PHYSICAL OCEANOGRAPHY DATA REPORT
PROFILING CURRENT METER DATA - CAMP CARIBOU
VOLUME 1

by T.O. Manley, Kenneth Hunkins, and Werner Tiemann

The oceanographic program of the 1975-1976 ARCTIC ICE DYNAMIC JOINT EXPERIMENT (AIDJEX) was designed to investigate the Arctic Ocean on space scales of 100 kilometers in the horizontal and hundreds of meters in the vertical. This was accomplished with oceanographic observations from a triangular array of three smaller manned satellite camps with a centrally located larger main camp. The radio call signs of the satellite camps were Caribou, Blue Fox, and Snowbird, the main camp being designated Big Bear.

Profiles of relative current speed and direction were measured twice each day between the surface and 200 meters at each of the four camps. A profiling current meter (PCM) with speed, direction and depth sensors was lowered and retrieved with a multi-conductor cable at a slow rate of 5 meters per minute. Sensor signals were transmitted by cable to be recorded graphically and digitally at the surface. Digital recording of the data at a slow rate of 1 scan per half minute along with a low signal-to-noise ratio made it preferable to manually digitize the analog charts to preserve as much information as possible.

The final data set consisting of absolute velocity profiles of speed and direction was obtained by the vector addition of the relative PCM profiles with the interpolated ice velocity based on precise satellite navigation at the time of the observation. Data reduction problems included a hysteresis effect between up and down traces due to cable angle, directional spikes resulting from a rapid sensor package rotation, and spurious results when low velocities are added vectorially.

Relative speed between the ice and water in the upper mixed layer is often small indicating that this layer closely follows the ice motion. Persistent large clockwise shears in relative current direction occur sometimes in the mixed layer, attaining up to 540 degrees of rotation. These are best seen in the relative velocity data. Upon the addition of the ice velocity vector, to produce absolute velocities, the smooth relative directional shear of the Ekman spiral then exhibits local shears and speed minimums. This is due to the directions and speeds in the spiral being opposite or nearly opposite to the ice velocity vector and of comparable magnitude.

One of the most striking features of the current profiles is the appearance from time to time of swift currents below the mixed layer with speeds attaining 60 cm/sec. The depth of maximum velocity ranges from 80 to 190 meters. Although evidence of swift transient undercurrents had been observed in the Arctic Ocean as early as 1937, it was not until 1974 that these currents were shown to be associated with mesoscale eddies.

This data report deals only with the absolute velocity data obtained from the profiling current meter at Camp Caribou. PCM data for Camps Blue Fox, Snowbird and Big Bear are in separate volumes (Manley et al., 1980). Data reports pertaining to the salinity-temperature-depth (STD) data taken at the manned AIDJEX camps are also in separate volumes (Bauer et al., 1980).

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INTRODUCTION

The objective of the AIDJEX oceanographic program was to monitor velocity and mass fields in the upper levels of the Arctic Ocean from the four manned camps in order to provide an understanding of the interaction between ice and water.

The initial deployment of the manned camps began in March of 1975 with the establishment of the main camp, Big Bear. The satellite camps were then established during the next month and a half. The scientific program at each camp began as soon after its establishment as possible. Inclusive dates for the beginning and ending of the profiling current meter work done at each camp is listed in Table 1. Big Bear broke up in early October of 1975 and its scientific and logistic functions were transferred to the satellite camp Caribou. All of the other camps remained in operation until the closing, according to schedule, in May 1976. Figure 1 shows the position of the camps during the initial deployment in March of 1975.

The drift tracks that each camp made during the duration of the experiment are shown in Figures 2 through 5. A thumbnail sketch locates the plotted region with respect to the Alaskan and Canadian coasts. The asterisks indicate the positions at integral multiples of 20 days. The beginning and ending days are noted for each trajectory. A dashed line indicates a period of missing data. The region is 500 kilometers by 500 kilometers aligned with the x-y coordinate system shown in Appendix 1. Figures 2-5 were taken from Thorndike and Cheung, 1977.

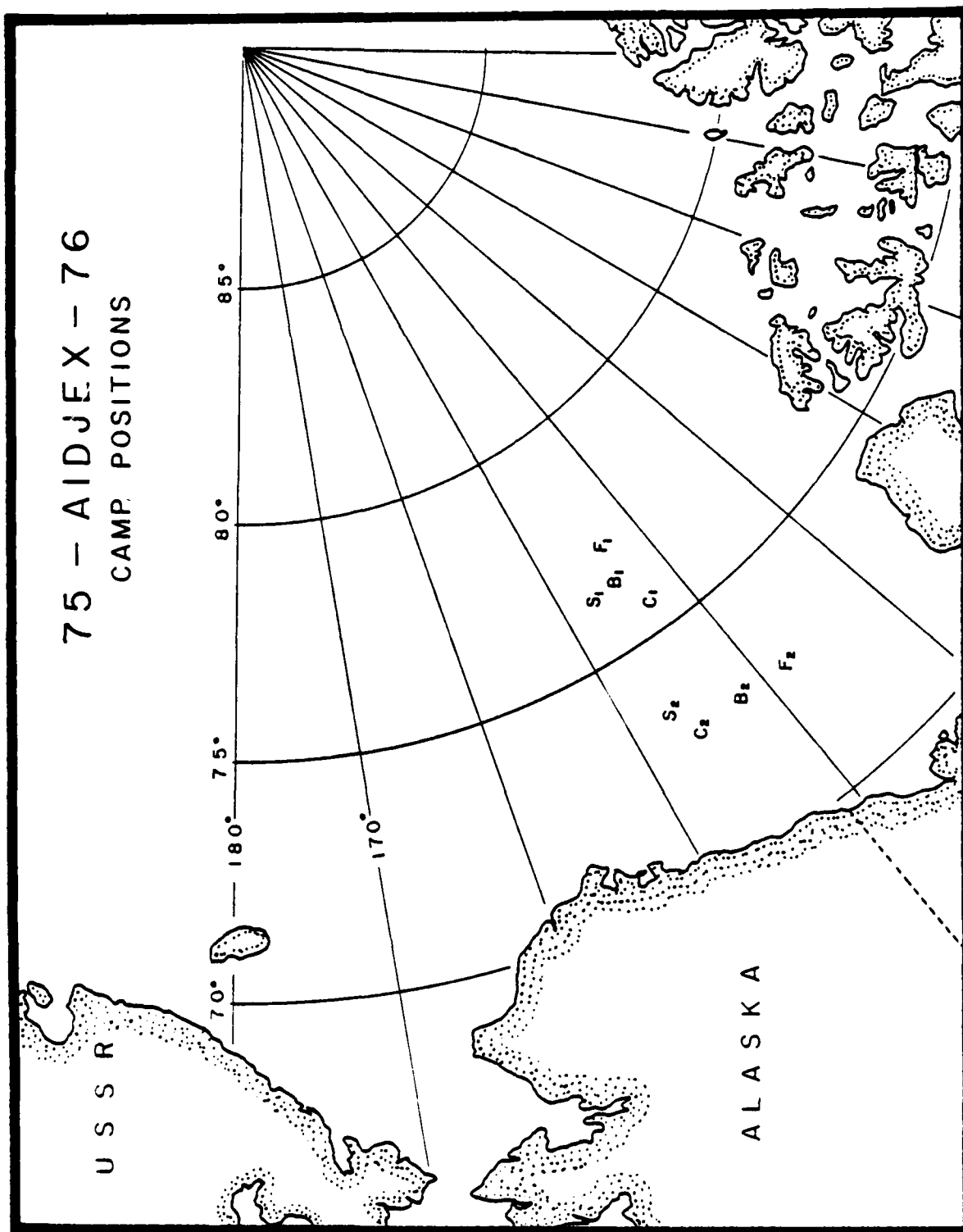


Figure 1. Beginning and ending positions of the four manned AIDJEX camps Caribou (C), Blue Fox (F), Snowbird (S) and Big Bear. Subscripts of 1 indicate the beginning positions. A subscript of 2 indicates the final position of the camp.

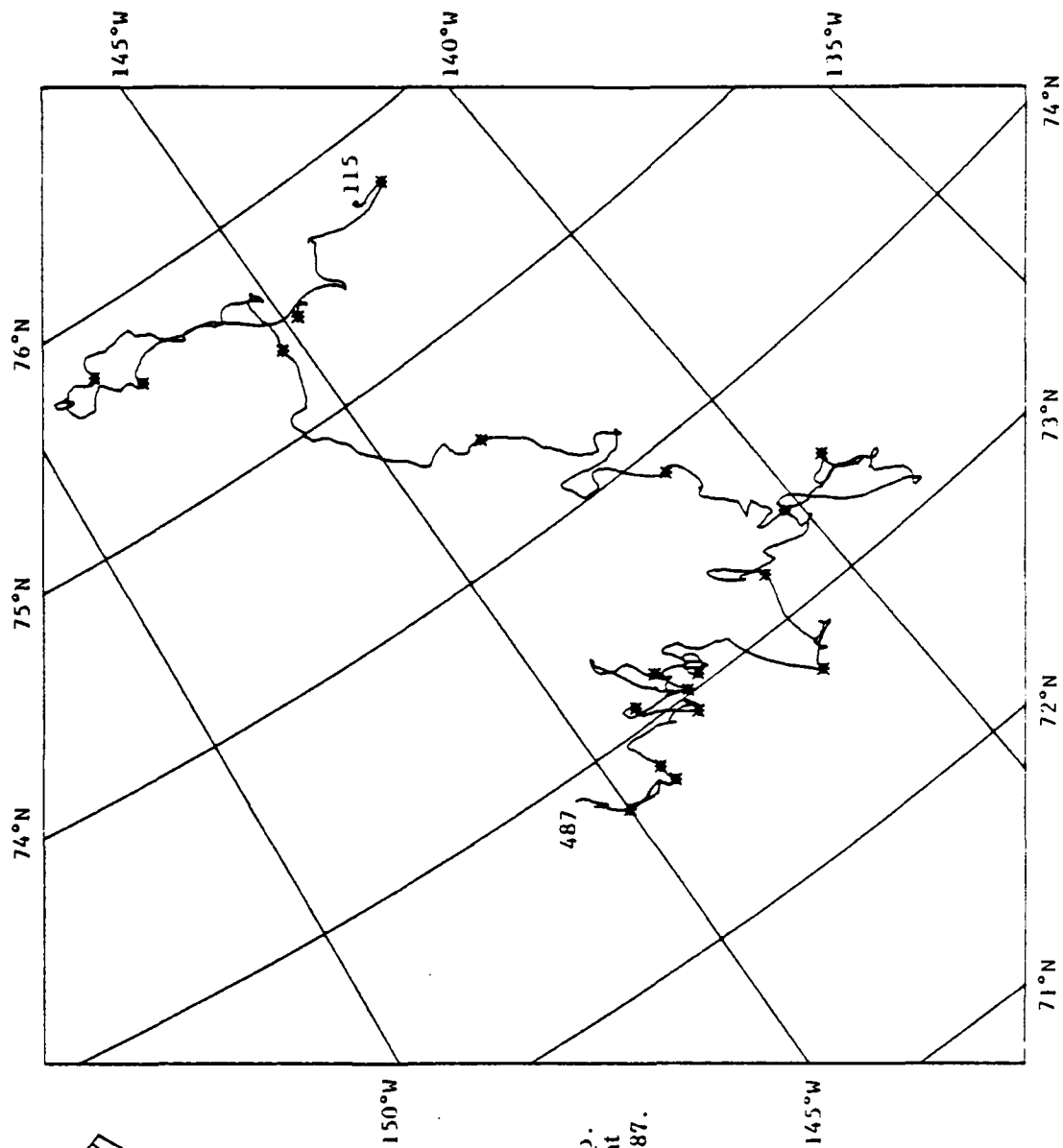


Figure 2.

Camp Caribou

Became the main camp
after Big Bear broke up.
Measurements by NavSat
from day 115 through 487.

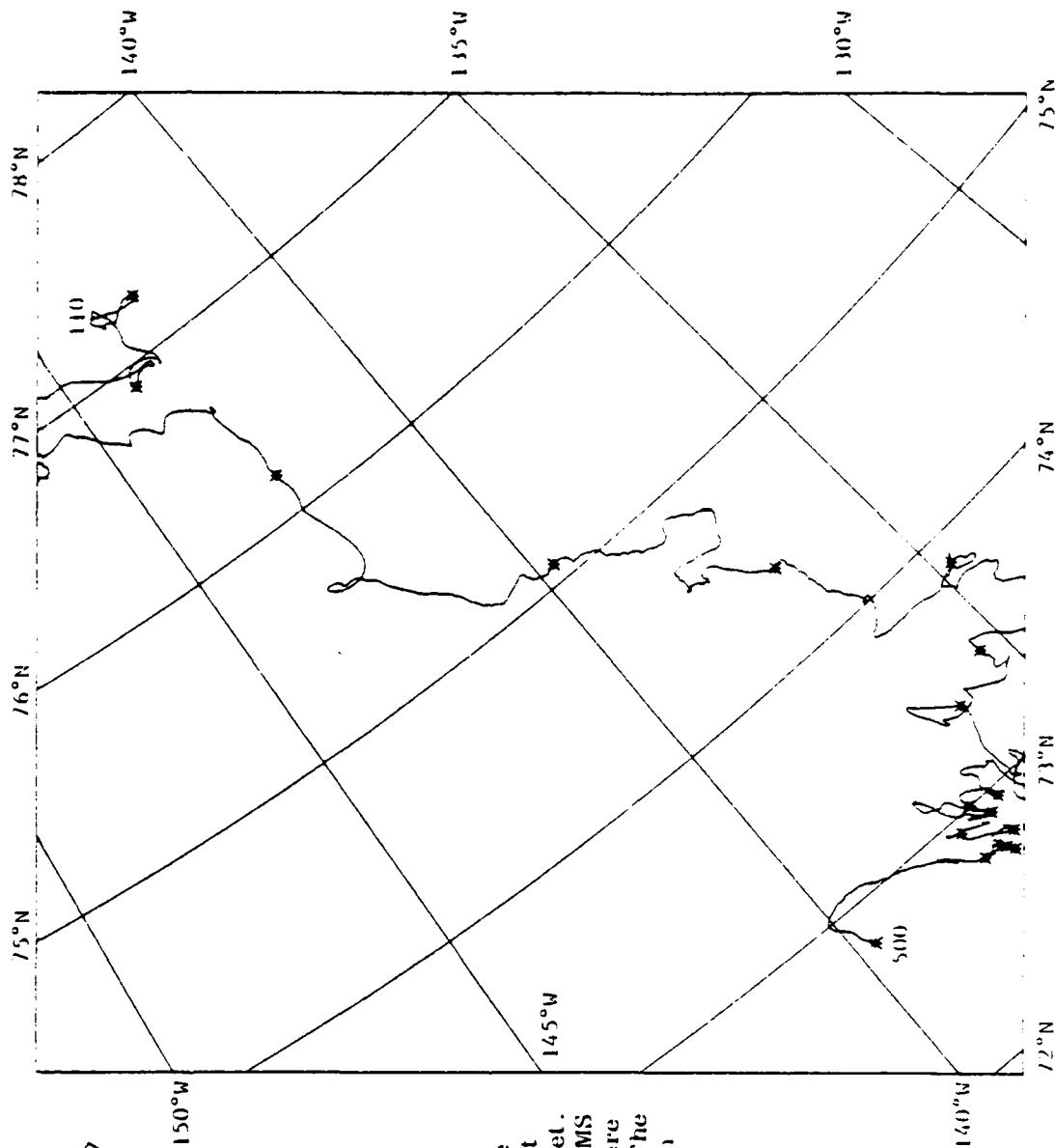


Figure 3.

Camp Blue Fox

Measurements by NavSat from day 110 through 489 with a gap from 203 to 208. Celestial position fixes were made during that period but were not used in the data set. After day 490 data from RAMS buoy R 772 were used. There is a gap from 531 to 573. The buoy was last heard from on day 579.

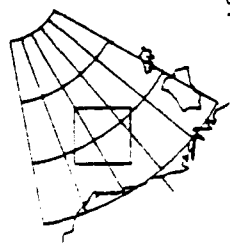
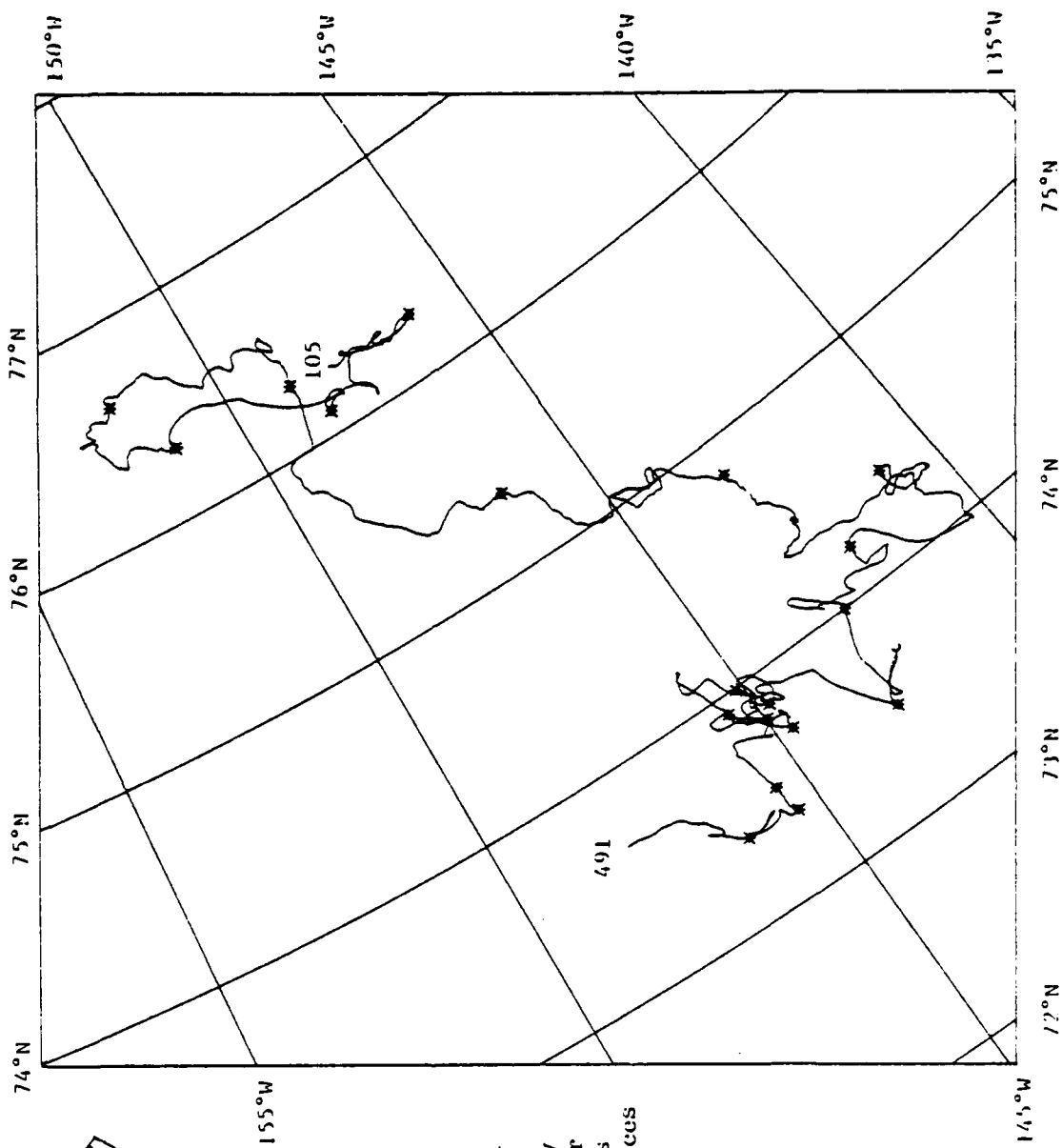


Figure 4.

Camp Snowbird

Measurements by NavSat from 105 through 491. This station was split by cracks during the winter and the NavSat antennas were moved short distances several times.

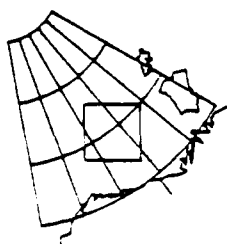
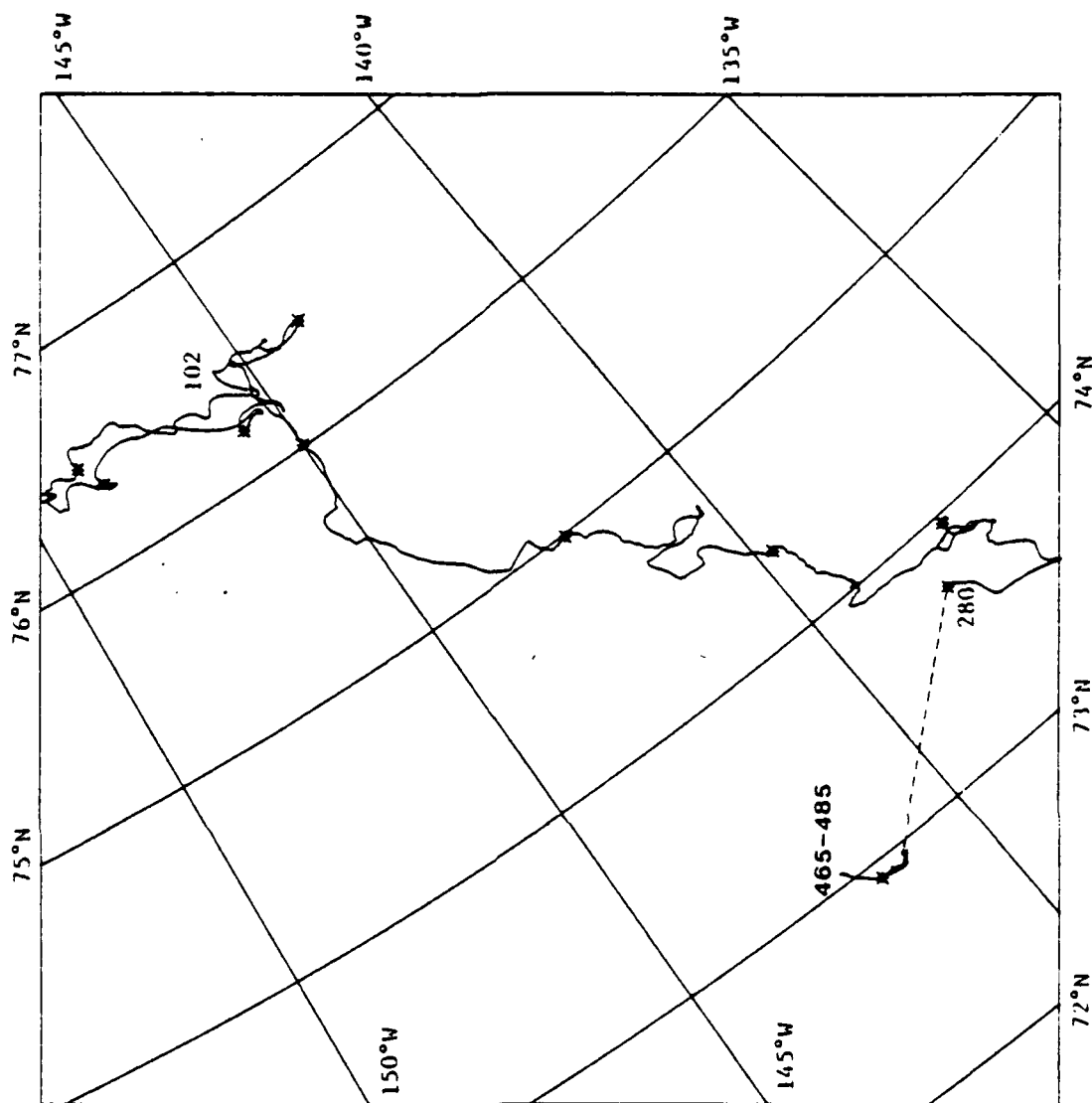


Figure 5.

Camp Big Bear

Measurements were made by NavSat beginning on day 102. On day 274 the camp was broken up by ice activity and eventually abandoned, the last data being on day 280. For a brief period in the Spring of 1976 the station was reoccupied and position measurements were made using RAMS buoy R 604, days 465-485. By this time the old camp had been spread over several kilometers.

TABLE 1
Breakdown of Profiling Current Meter Stations for Individual Camps

Camp	Occupation Date	Evacuation Date	Total Stations Taken	Profiling Stations	Time Series Stations	Stations Digitized
Caribou	6-Apr-75 (5-Aug-75)	7-May-76 (22-Apr-76)	404	395	9	163
Blue Fox	5-Apr-75 (8-May-75)	4-May-76 (20-Apr-76)	700	698	2	376
Snowbird	4-Apr-75 (4-May-75)	6-May-76 (20-Apr-76)	620	603	17	377
Big Bear	13-Mar-75 (8-Apr-75)	8-Oct-75 (1-Oct-75)	425	397	28	258

- Note: 1) Parenthetical dates are those when PCM data collection began and ended.
- 2) "Stations digitized" indicate stations that had sustained speeds greater than a few cm/sec and were manually digitized for computer reduction.

The largest horizontal scale sampled by the PCM observations was the nominal 100 kilometer spacing of the manned camps, the smallest was the distance between successive casts at one camp. The maximum vertical scale sample was limited by the 200 meter depth of the profiling current meter casts. The smallest vertical scale sampled was about 10 meters and was determined by the response rate of the instrument and its rate of ascent and descent.

The AIDJEX oceanographic program maintained fixed-mast current meters of uniform type (Hydro Products) at all camps at shallow depths in the planetary boundary layer. The fixed-mast current meters at each camp were suspended on a series of rigid 3 meter, 7.5 cm diameter, PVC sections at depths of 2 and 30 meters below the base of the ice. Hourly averages pertaining to the fixed-mast current meters can be obtained through the National Oceanographic Data Center.

The directional sensors of the fixed-mast current meters were referenced to the instrument case and therefore had to be referenced to the camp azimuth to provide directions relative to true north. This was accomplished by accurately drilling the coupling holes at the ends of the PVC pipe by a lathe. When the current meter was suspended at its correct depth, the top drill hole of the pipe was then aligned to a fixed point in the camp area. A simple correction angle could then be applied to the fixed-mast data relating their direction to the camp azimuth.

Profiling instrumentation consisted of a Tsurumi-Seiki Co., Ltd. (TSK) underwater unit with a Savonius rotor, directional vane and pressure sensor. The unit was raised and lowered at 3 meters per minute by an electric

winch. The rate was chosen after several experiments to determine rotor response with different axial velocities. Current direction in this instrument was referenced to an internal magnetic compass. The direction vane follower and compass were both operated on the "light encoding disk" principle and were therefore not subject to unnecessary drag caused by the usual wiper arm friction. Low bearing friction and viscosity of the fluid surrounding the compass were the only components of drag on the directional system. This is an important factor since the horizontal component of the earth's magnetic field is so weak at these high latitudes.

Data from the PCM were simultaneously recorded on an analog chart recorder with speed, direction and depth versus time and on the AIDJEX digital data logging system (DDL). The data pertaining to the fixed-mast current meters were also recorded on the AIDJEX DDL system as well as on a multipoint recorder. The scan rate of the DDL (30 seconds) was acceptable for sensors obtaining long time series such as the fixed-mast current meters, but was not fast enough for the rapidly changing signals of the PCM.

Magnetic declination was measured one or more times each day at all the camps. These measurements were calculated by a relationship between the true and magnetic bearings of the camp azimuth. The camp azimuth was defined as an imaginary directed line passing through the A and B antennas of the satellite navigation system. The bearing of the camp azimuth, as related to true north, was determined by sun shots taken by the meteorologists. The magnetic bearing was obtained using an accurate surveyors compass placed directly in line with the camp azimuth. Magnetic declinations taken in this manner were good to plus or minus one-half a degree.

A total of 2084 PCM stations were obtained at the four camps over the yearlong duration of the program, each station consisting of an uptrace and downtrace. Of these, 1174 stations were useable. Stations that were not acceptable had relative currents that were below the threshold velocity of the instrument (approximately 5 cm/sec). Table 1 shows the breakdown of the total stations at each of the camps with those used in the final data reports. A listing of all the stations taken at the camp along with other associated parameters (dates, position, ...) is reported under the section "PCM STATION LISTING."

PCM RELIABILITY

Generally, all of the stations that have been processed show good coherence between the uptrace and downtrace of the relative velocity profiles on the scale of 10 meters or more. In many cases, the short wavelength structures can be followed from one station to the next. No spectral studies have, as of yet, been completed on the data to statistically confirm these observations. It appears, however, that repeatability of the data is very good on the scale of 20 meters and greater.

Similarity of directional tracking between the down and uptraces was rather good provided that the current speed was greater than 5 cm/sec. As the speed increased, the tracking of direction became very uniform as can be seen during any of the stations where rapid currents or eddies were observed. Below the velocity of 5 cm/sec, the directional vane oscillates widely and the coherence between traces falls off rapidly.

The one major problem associated with the PCM at all of the camps was the sluggishness of the Savonius rotor when compared with the Savonius rotors of the higher quality Hydro Products fixed-mast meters. We feel that this problem, since it was observed at all of the camps, was inherent in the design of the rotor system itself and was most likely due to bearing drag. Because of this problem of velocity data being less than suggested manufacturers' limits, great care was taken from the beginning to calibrate the PCM velocity readings at every station against the more accurate velocity readings of the 30 meter fixed-mast sensor. Experience from a number of investigators has shown that Savonius rotors with free bearings and uniform manufacture do

not need individual tank testing. A universal calibration curve may be used as was done for the Hydro Products meters. The Hydro Products Savonius rotor units had exceptionally good bearings and were used for calibration. The velocity of the 30 meter fixed-mast sensor and the velocity reading of the PCM were recorded at the instant that the two sensors were at the same depth level during each cast.

Calibration of the PCM velocity sensor was accomplished by linear regression between the PCM and 30 meter velocity readings over fairly large blocks of time (10 to 20 days). The blocks were separated into up and down-traces due to the presence of a hysteresis effect caused by the raising and lowering of the PCM through a current. In effect, a higher velocity would be recorded at any one level on the uptrace because of the sensor being pulled through the current. The opposite would be true for the downtrace. Large data blocks were used in the calibration procedure in order to (1) obtain enough data points over a wide range of speeds, and (2) average out random noise due to turbulence and/or human recording errors.

The mean coefficient of determination was calculated to be 0.87 with a standard deviation of 0.08. This indicates a high degree of correlation between the two Savonius rotors. Figure 6 shows a typical regression diagram used in the calibration of the speed sensor at camp Big Bear.

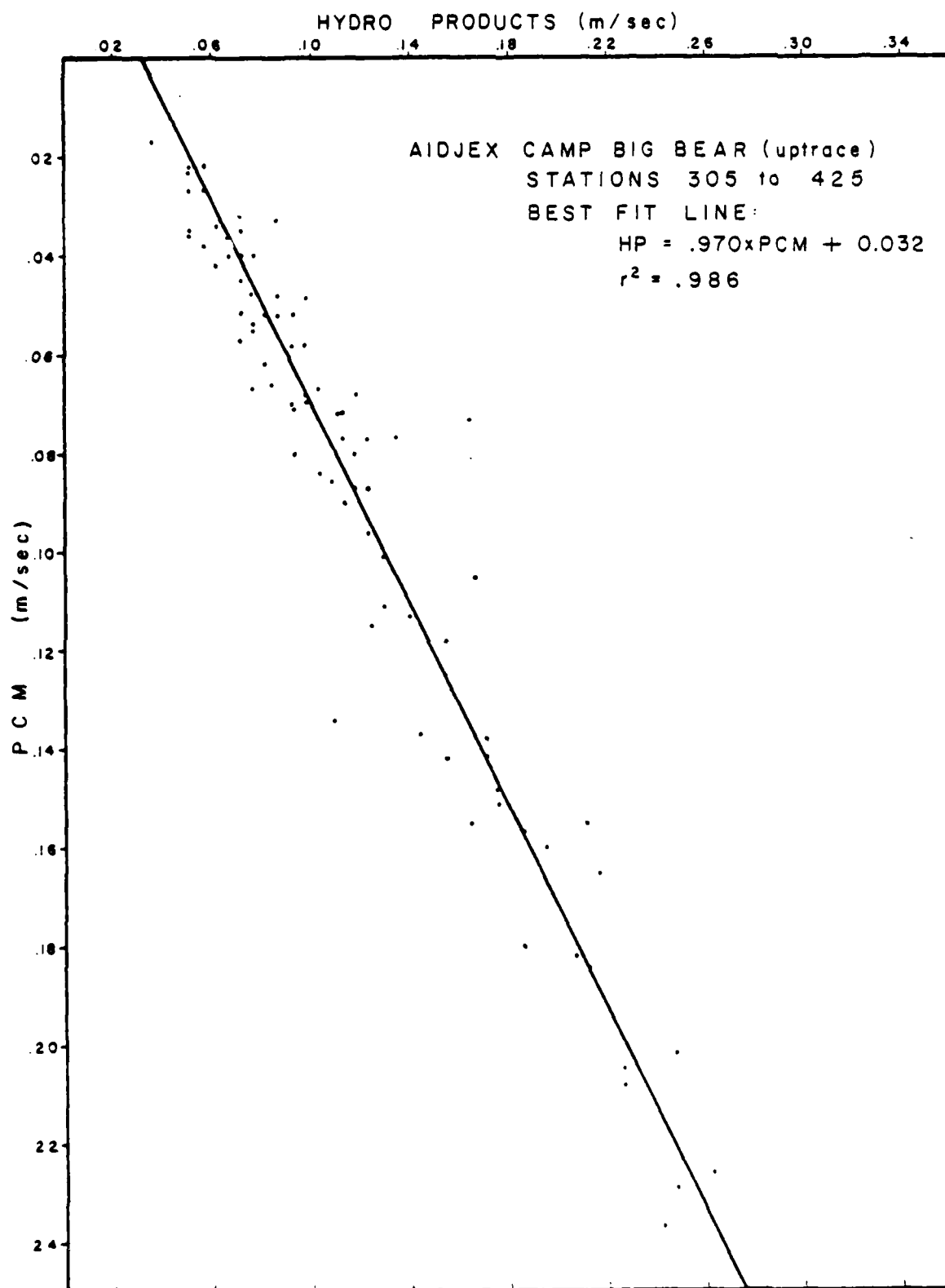


Figure 6. Linear regression diagram taken from a segment in the speed calibration from camp Big Bear.

INITIAL DATA REDUCTION

In addition to the calibration of the raw velocity data of the PCM, directional calibration, values for magnetic declination through time, and digitized card decks of the analog data had to be obtained before reduction could begin.

The PCM deck unit produced directional output from 0 to 540 degrees. This was designed to eliminate the rapid pen oscillations (zero to full scale) commonly seen on the 0 to 360 degree outputs when the directional vane oscillates around 0 degrees. There were only two instances when rapid pen movement was observed on the analog charts. The first being a shift from 0 degrees to 360 degrees and the second being a shift from 540 degrees to 180 degrees. On the basis of these exact shift points for 0 and 540 degrees, calibration segments throughout time were made that would correct direction for any linear drifts or sudden offsets. Linear drifting of the zero and full scale settings in time were not evident or did not account significantly for changes in the calibration data. As a result, bounds of the calibration segments were chosen because of sudden offsets in the data.

Magnetic declination data were originally taken once every day at each camp and then increased to once every time a profiling current meter station was taken. Readings obtained from a surveyor's compass aligned with the camp azimuth were combined with the camp azimuth determination closest in time to determine magnetic declination. The reduction of magnetic declination information was done so as to create blocks of data points that were separated by naturally occurring breaks caused by rapid ice movement. An average

magnetic declination was then computed for each data block representing a short span in time for each camp. In these data sets, very few points fell outside a span range of 3 degrees. Magnetic declination data obtained in this manner were accurate to within the plus or minus 6 degree accuracy limits for the PCM directional system. Final magnetic declination was then used to convert original PCM directional data (referenced to magnetic north) to true direction.

Finally, the analog chart records were digitized. Generally, each station consisted of a downtrace and uptrace unless one or the other had been rejected because of insufficient current or recorder problems. The points taken for digitization on each of the output traces for speed, direction and depth were the maxima, minima and inflection points, with enough points in between to preserve the proper curvature. Digitization provides some smoothing of the data. However, data with a scale length of greater than 2 meters were not affected.

The AIDJEX digital data logger tapes were not used for PCM data reduction due to a predesigned sampling rate of the computer that was too slow for the rate at which the PCM was lowered. Excessive noise along the data transmission lines also was a main factor in not attempting to reduce the tape data for the PCM.

Due to the convention adopted by the AIDJEX staff and other institutions responsible for the reduction of data taken during the main AIDJEX experiment, time was converted to a Julian calendar system with day 1 = 1 January 1975 and ending with day 500 = 4 May 1976. Throughout this data report, time in AIDJEX days is frequently cited. A list of the AIDJEX days versus the normal Gregorian system was tabulated in Appendix 3.

COMPUTER REDUCTION

Computer reduction involved quality control and calibration of the relative traces. The final product was absolute velocity consisting of speed and direction at one meter intervals to the maximum depth of the station. The flow diagram shown in Figure 7 indicates the sequence of operations used to produce the absolute data.

Once a large block of digitized data, consisting of up and down traces was completed, several quality control programs were run on the data. These programs checked for various mechanical and operator errors. After all problems were removed from the digitized decks, they were stored permanently in computer files.

Relative data were then produced for the individual up and down traces for all stations. Velocity and directional corrections were applied to the data to provide calibrated speed referenced to the Hydro Products 30 meter fixed-mast sensor and correction for directional offset and full scale parameters. Direction at this point in the processing was relative to true north by the addition of magnetic declination. The data set being produced consisted of individual traces with speed and direction at one meter intervals.

As reduction of the data proceeded, it became apparent that there were frequent, rapid 360 degree directional rotations and corresponding fluctuations in speed which were caused by the instrument (Figure 8). This feature appeared to be inconsistent with, or entirely absent from, the associated up or downtrace for a given station. Further investigation of this feature showed it to be an artifact induced into the analog records by a rapid

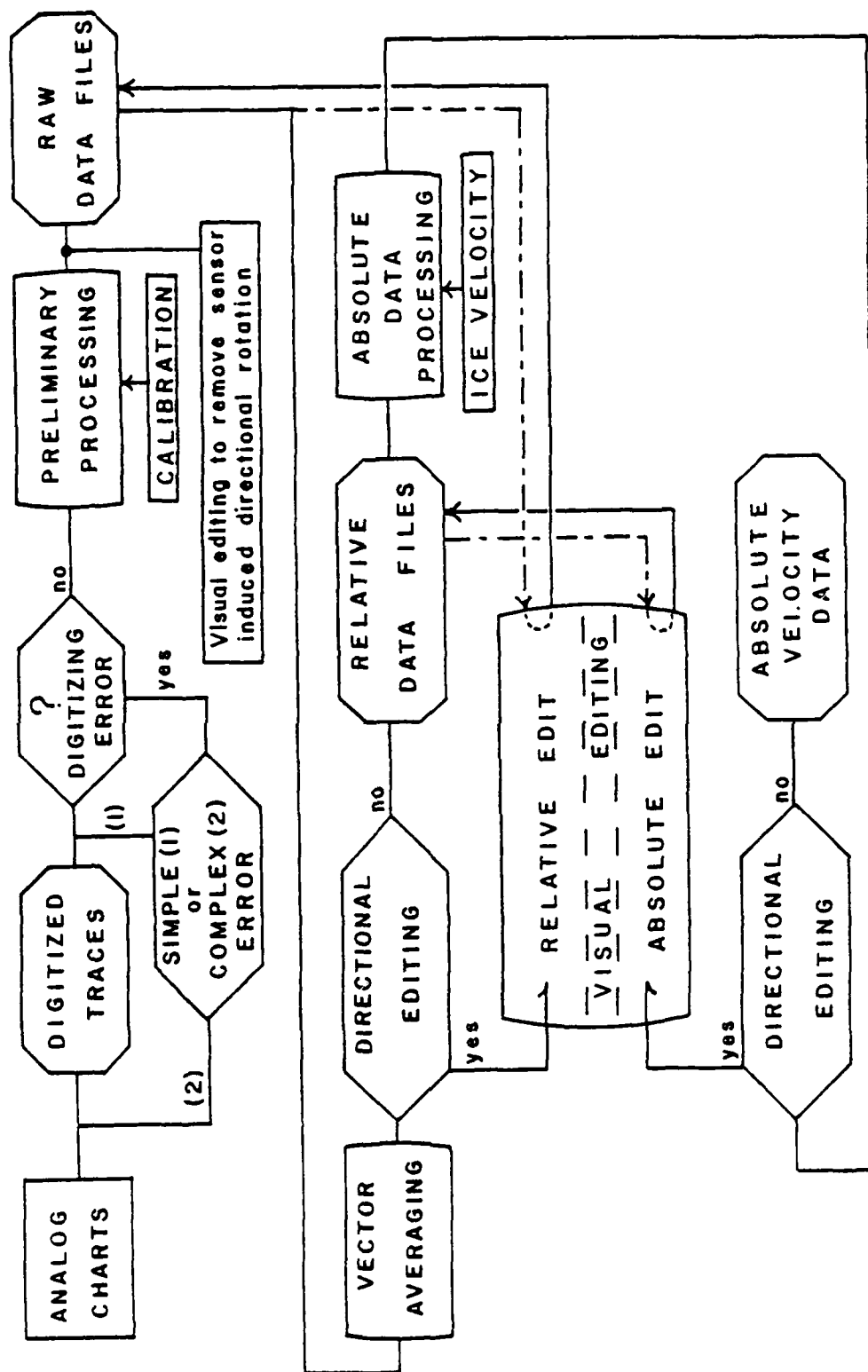


Figure 7. Flow diagram indicating the process by which absolute velocity data are obtained. Dashed line with arrow indicates the file necessary for editing. Solid line with arrow indicates where final edited data are returned.

spinning of the sensor package. The reason for the rotation of the sensor is believed to be a rapid untwisting of the stiff electrical cable after it had been slowly turned by hydrodynamic forces acting on the slight asymmetries of the instrument package.

Even though the direction system of the PCM was independent of the instrument package, the viscosity of the fluid surrounding the compass provided enough friction to partially rotate it along with the instrument housing.

Approximately 70 percent of the analog traces had been digitized by the time this feature had been recognized as an instrument-induced signal. Nearly half of these digitized traces were associated with one or more of the directional features. The remaining analog traces requiring digitization had the rapid directional rotation and associated speed fluctuation removed manually. This was accomplished by supplying a visual best fit curve to the valid data before and after the deleted segment.

Due to the large portion of digitized analog traces that included this rapid directional rotation, a visual editing program was created to remove them. The editing program graphically displayed any uptrace or downtrace found by the operator to contain one of these rotational features. The operator then chose the upper and lower depth limits of the feature that was to be deleted. A least squares best fit cubic equation was then calculated using three points preceding the upper depth limit and three points following the lower depth limit. In the special cases where the directional rotation began at the start of the trace or concluded at the end of the trace, so there was no leading or succeeding three points, an average of the three points present was used to

fill in the deleted section. Figures 8 and 9 show an example of the editing procedure of the program using a before and after profile of a station with one of the rotational features.

The uptrace and downtrace were combined, by vector averaging, to provide a single relative velocity profile. Speed and direction of the two traces were converted to north and east components. After the averaging of the individual components at one depth level, they were reconverted to speed and direction.

The hysteresis effect was effectively eliminated by the addition of the two traces. In several cases where only one trace existed for a station, the profile was not altered to remove the hysteresis.

Vector averaging was preferred over arithmetic averaging of the traces because of an added advantage during low speed addition. As previously mentioned, directional coherence falls off rapidly as the speed approaches the threshold velocity of the instrument. When combining the two traces, it was preferable that the greater velocity observed would have more weight in determining the final output at that depth level.

Vector averaging did possess its own inherent difficulties. The majority of these problems were confined to low velocity addition. When the traces to be added were significantly different in directions at the same depth level (due to low directional coherence at low speeds), erratic directional oscillations or rapid shifts in direction would result when the vectors from both traces would alternate dominance and thereby change the final output more to the direction of the dominant vector. These shifts would sometime attain a directional shear of 180 degrees per meter.

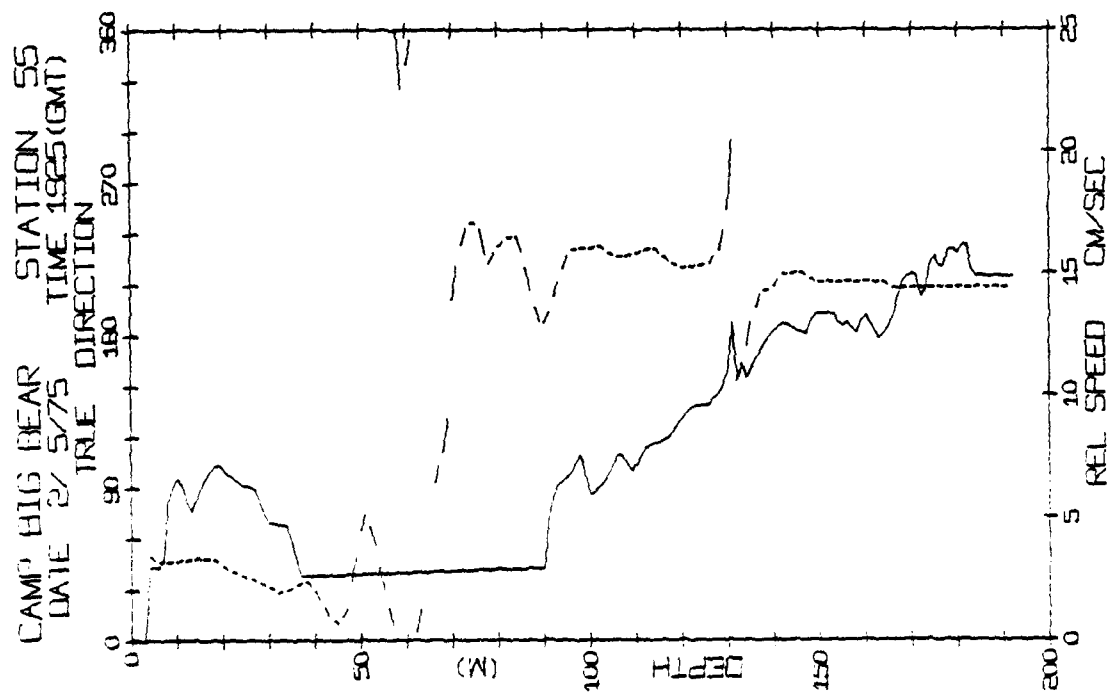


Figure 8. Typical example of a 360 degree directional rotation caused by the sensor package being spun. Seen at 130 m.

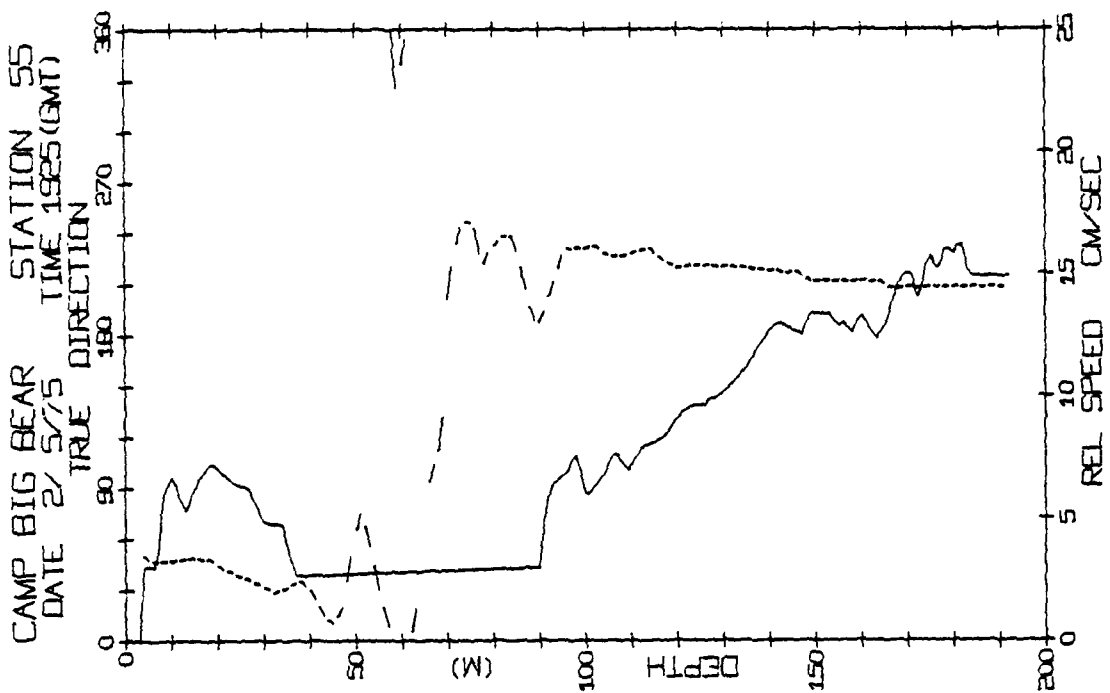


Figure 9. Same plot as Figure 8, but after being visually edited to remove 360° rotation.

The remainder of the cases providing the erratic directional output were due to a rapid increase in speed (within a few meters) resulting from the Savonius rotor attaining or passing its threshold velocity after being motionless for some period of time. As before, if directions were significantly different, an increase in speed would sometimes change dominance from one trace to another, thereby providing rapid directional shifts.

Both of these problems, for the most part, were removed without any major difficulty. This was accomplished by visually editing the section of the trace causing the erratic directional output. Editing was done in the same manner used to remove the sensor-induced rotational spikes. It should be noted that the editing of the traces was not designed to eliminate the sense of the rapid shift in direction, but rather to smooth the shift out to a more realistic rate of change of direction. In general, rapid directional shifts with a rate of change of direction less than 30 degrees per meter were left untouched. For consistency throughout the data set, only one person familiar with this particular problem was used in the editing process. It was felt that this provided as much continuity as possible in the decision making from station to station and from camp to camp. Several stations from a few of the camps were eliminated all together from the data set because necessary editing would have been too severe.

Before the editing of the relative data was to commence, an attempt was made to reduce the amount of visual editing by removing all relative speeds and their associated directions less than or equal to 5 cm/sec from the data set. This, however, turned out to be impractical because the total amount of relative data lost would have been on the order of 30%, as compared to the 1% - 2%

that was to be edited. Another problem was the loss in continuity of speed and direction in a profile every time a block of data less than 5cm/sec was removed.

Finally, absolute velocities were computed by vectorially adding ice velocities to the relative data.

Obtaining estimates for the position and ice velocity for a particular station is given in greater detail in the section entitled "Interpolated Position and Ice Velocity." Briefly, two cubic equations (related to latitude and longitude) are uniquely defined by the satellite navigation data sets directly preceding and following the point in time related to the station. Each satellite navigation set consists of the position (latitude and longitude), ice velocity (north and east components) and the time of observation. Introduction of the time of the station into the two cubic equations provides the latitude and longitude of the station. North and east ice velocities are calculated using the first time derivatives of the latitude and longitude equations respectively at the time of the station.

Estimates (95% confidence limit) of the errors associated with latitude, longitude, north and east ice velocities are also provided at the same time. If the error estimates were too severe, the station in question was then removed from the absolute data set.

Any data obtained while the sensor was in the hydro-hole were removed. Ice thickness at the hydro-holes is indicated in Table 2. The first data point to be kept as viable data was at the first integral depth value past the bottom depth of the hydro-hole. Any data reported in the hydro-hole

were given default values for speed and direction. The default values being 0.0 cm/sec and 999.9 degrees respectively.

TABLE 2

<u>Camp</u>	<u>Ice Depth Below Sea Level at Hydro-hole (cm)</u>
Caribou	300
Blue Fox	470
Snowbird	340
Big Bear	250

Vector addition still proved to be a problem in a small percentage of the total number of data points. This problem was very similar to the difficulties encountered during the low velocity vector averaging of the up and downtraces, the only difference being that this occurred when speeds of the relative data closely matched that of the added ice velocity vector. Generally, this happened when ice velocities were low; however, problems did still exist at speeds of 15 to 20 cm/sec. Even though the final result of the addition of the ice vector to the relative data for these special cases was very similar to the low velocity vector averaging problem, the physics of the situation was not the same. The reason for the majority of the problems was a result of the PCM being pulled through a nearly motionless part of the water column (absolute speed less than 5 cm/sec). The result being a relative speed profile of the negative of the ice velocity vector while the sensor was in that particular part of the water column. Upon the addition of the ice velocity vector

to the relative data, resultants are going to be very small and for the most part directions will have very high shears attaining 180 degrees per meter.

Consider the example where two relative velocity vectors separated by 1 meter in depth are being added to the ice velocity. Both vectors are nearly opposite to the ice vector, however one of the relative vectors is less than the speed of the ice and the other having a magnitude greater than that of the ice. The result of the addition would be two successive small amplitude absolute velocity vectors, each being out of phase with the other by approximately 180 degrees.

Visual editing of the relative data was again employed to remove the extreme directional shears from the absolute velocity profiles. There was, however, one major difference in the editing policy, since directional shears were generally larger than those seen in the averaging process and they were due to a different situation. This procedural difference was to ignore the directional shifts at low speeds and concern ourselves with trying to provide correct decisions at the higher velocity directional shifts that would maintain the integrity of the original analog profiles. As a result of this decision, there are several profiles still possessing the high directional shears at low absolute speeds. These directions are not to be taken as fact but rather should be put in proper perspective with the directions at more reliable speeds above and below the affected segment.

INTERPOLATED POSITION AND ICE VELOCITY

Filtered and smoothed estimates for position and velocity through time were recently updated for all of the AIDJEX 1975-76 manned camps (Thorndike and Manley, 1980) to provide better resolution for inertial oscillations of the ice motion. The initial Satellite Navigation report (Thorndike and Cheung, 1977) indicated signal reduction in the data at the inertial period due to filtering of approximately 50% and was therefore not acceptable for the reduction of certain parts of the oceanographic data set.

Positional estimates were not regularly spaced in time nor were they at the times when the STD or PCM stations were started. Therefore it was necessary that some software routine be constructed in order to give reliable estimates of the position and ice velocity at the times of the stations in question.

Normally, 25 - 30 position fixes were recorded per day at each of the four camps. The maximum number of fixes per day was close to sixty, and the minimum was zero for a period of approximately five days. With these wide variations in the spacing of the data, it became important to estimate the standard error associated with the calculated positions and velocities. These error estimates would then later become useful in the determination of the station's relative importance for a particular application. Typical examples would be the rejection of an STD station (position error of 1000 m) intended to be used in a geostrophic calculation where the inter-station spacing is on the order of 2 kilometers, or relative velocity PCM stations being rejected for absolute data processing when the ice velocity error was exceedingly high. Regardless of the intended application, error estimates for both position and velocity are an integral part of the data set.

There are several methods to determine the position of a given camp at a particular time, given precise estimates of the position and velocity before and after the time in question. The methods range from a simple approach of choosing the position fix closest in time to the station in question, to more involved interpolation schemes.

Due to the presence of small to intermediate scale structures observed in the AIDJEX oceanographic data set, precise position and ice velocity estimates were required to resolve them as best possible. By defining a smooth and continuous time dependent function $X(t)$, of a positional parameter such as latitude or longitude, four boundary conditions were initially provided by the navigation data set. These known conditions were: $X(t_1)$, $X(t_2)$, $X'(t_1)$ and $X'(t_2)$. In order for the function $X(t)$ to be uniquely defined, $X(t)$ by definition must be cubic.

Once the time of the station was provided, cubic equations for both latitude and longitude were defined using the navigation points directly before and after the station time in question. Position and ice velocity were then obtained by substituting the time of the station into the cubic equations and their first derivatives. North and east ice velocities being defined as the first time derivative of latitude and longitude respectively.

ERROR ESTIMATES FOR INTERPOLATED POSITION AND VELOCITY

Error estimates for the parameters of latitude, longitude, north and east ice velocities were broken into two time blocks consisting of summer and winter data. This was done to take into account the more uniform movement of the ice during the winter and the more variable movement in the summer due to the presence of more open water and higher amplitude inertial oscillations. The summer block consists of the data between 1 July 1975 (day 182) and 30 September 1975 (day 273). All data outside the summer segment comprised the winter block. The breaking points in time were chosen on the basis of the presence or lack of high amplitude inertial oscillations using the entire plotted data set of ice velocities (Thorndike and Cheung, 1977) of which Figures 10 and 11 are only a part. A major part of the summer data showing the increased presence of high amplitude inertial oscillations can be seen in part of Figure 10. In Figure 11, which comprises part of the winter data block, there is a marked damping of inertial oscillations, showing amplitudes less than a few cm/sec (days 409-422; 13-26 February 1976).

Errors were then calculated with the use of the Navigational data set. The general processing system would be to take three sets of points from the navigation data set, at times $T_1 < T_u < T_2$, each set containing latitude, longitude, north and east ice velocity and the time of observation, T_1 , T_u and T_2 defined as follows:

- T_u = time of the "unknown"
- T_1 = time of first bounding data set
- T_2 = time of second bounding data set

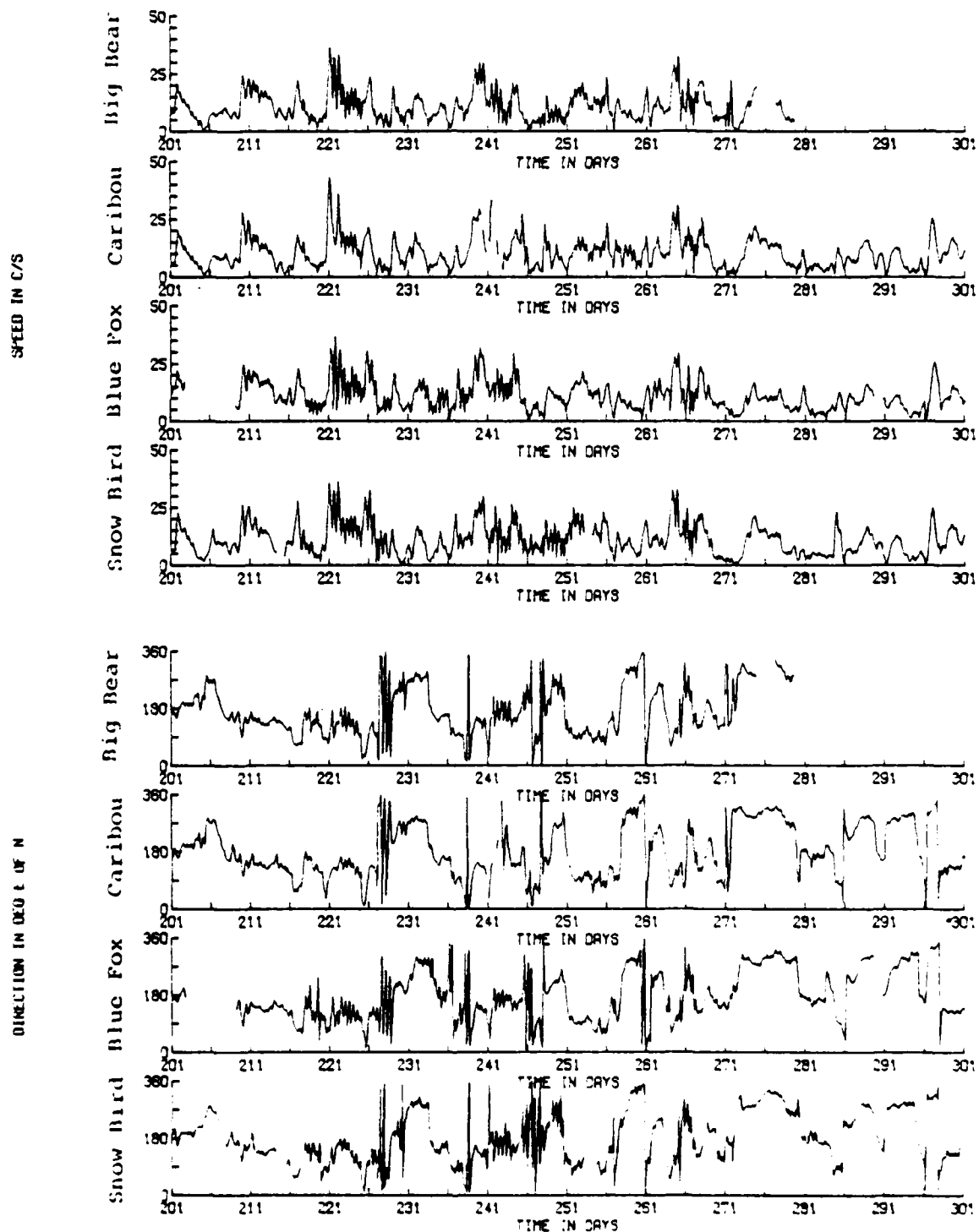


Figure 10. Speed and direction plotted for the manned AIDJEX camps, days 201 to 301.

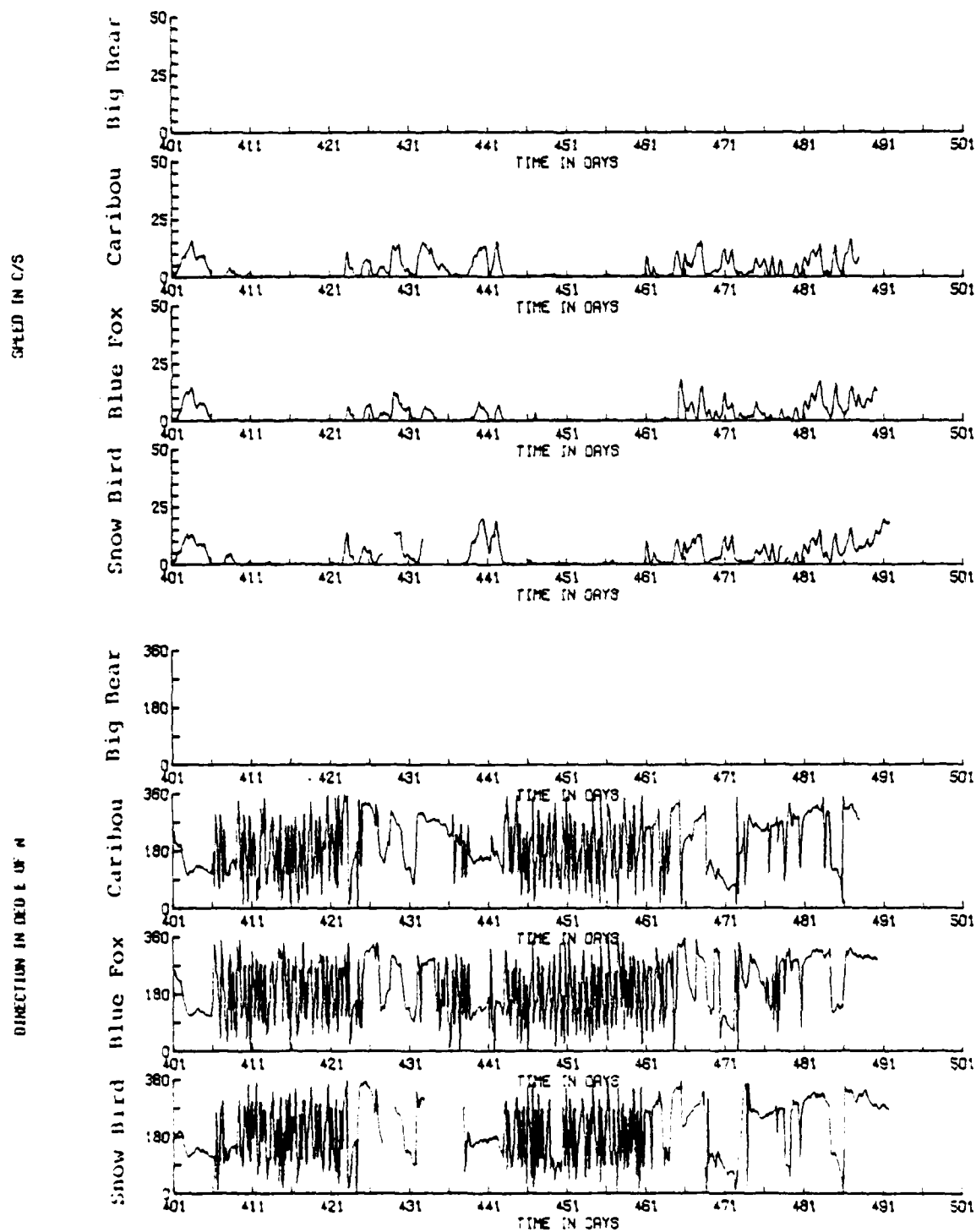


Figure 11. Speed and direction plotted for the manned AIDJEX camps, days 401 to 501.

The first and third sets of data define the boundary conditions upon which to formulate the cubic equations. The equations were then solved for the latitude, longitude, north and east velocity at the time of the second navigation set. Errors were then calculated by finding the absolute difference between the estimated (cubic) and known (navigational) parameters. The resulting errors for the four parameters were stored and statistically analyzed at a later time.

The errors were analyzed to determine their dependence on the times T1, Tu, and T2. If the bounding sets were separated by a relatively short span of time, regardless of where the "unknown" is within the time bounds, the errors for all four parameters are bound to be very small. On the other hand, if the bounding sets are separated by a large time span, then it becomes important to know where the "unknown" is located within the time bounds. As the time of the "unknown" approaches either of the bounding sets, errors are again going to be low. The same would be true for the reverse, i.e., as the "unknown" reaches a time point roughly in the center of the bounding sets, the errors should correspondingly get larger. Because of this, a time ratio was calculated and stored with the errors made for a particular point in time. The time ratio was defined to be the absolute difference in time between the first bounding set and the "unknown" divided by the time difference of the two bounding sets. This would be written as:

$$\text{Time Ratio} = R_t = (T_u - T_1) / (T_2 - T_1) \quad (1)$$

$$\text{Time Difference} = D_t = T_2 - T_1 \quad (2)$$

Roughly 1200 "unknowns" were computed for specified maximum time differences. The maximum time difference being the time difference between the bounding data sets. Maximum time differences were confined to specific limits, those being from 1-2 hours, 3-4 hours, 6-7 hours, 11-13 hours, 23-25 hours, and 47-49 hours. Each of these runs was computed for the summer as well as the winter block, thus making 12 runs total. Each run computed better than 4800 errors for the four parameters in question.

Data were then stored as to time ratio and plotted for each run and parameter as shown in Figures 12, 13, 14 and 15. These figures show the errors from the 11-13 hour run for the winter time block at camp Blue Fox, each figure being one of the error parameters.

A sliding t-distribution of 30 points (95% confidence limit) was run on each of the data sets to provide a statistical upper limit below which 95% of the original data would fall. A least squares best fit quartic equation was then computed for the 95% confidence limit points. The quartic equation was chosen because of its ability to fit the data more closely at the time ratios of 0.0 and 1.0. Quadratic and cubic equations would tend to provide excessive negative error approximations as the bounding ratios were approached. Figures 16, 17, 18 and 19 represent the 95% confidence limit points and corresponding best fit equation resulting from the original data sets shown in Figures 12-15.

It has already been estimated that the error estimate (Ee) is defined to be a function of two parameters as stated in equation 3.

$$Ee = F(Dt, Rt) \quad (3)$$

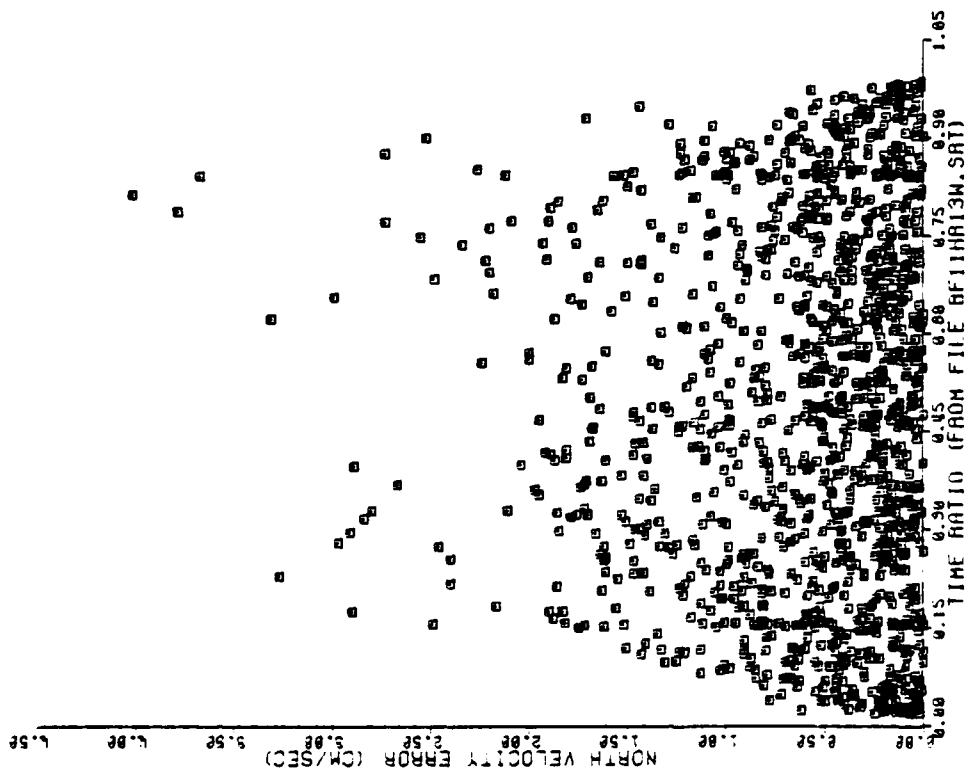


Figure 14. See text for more complete description.

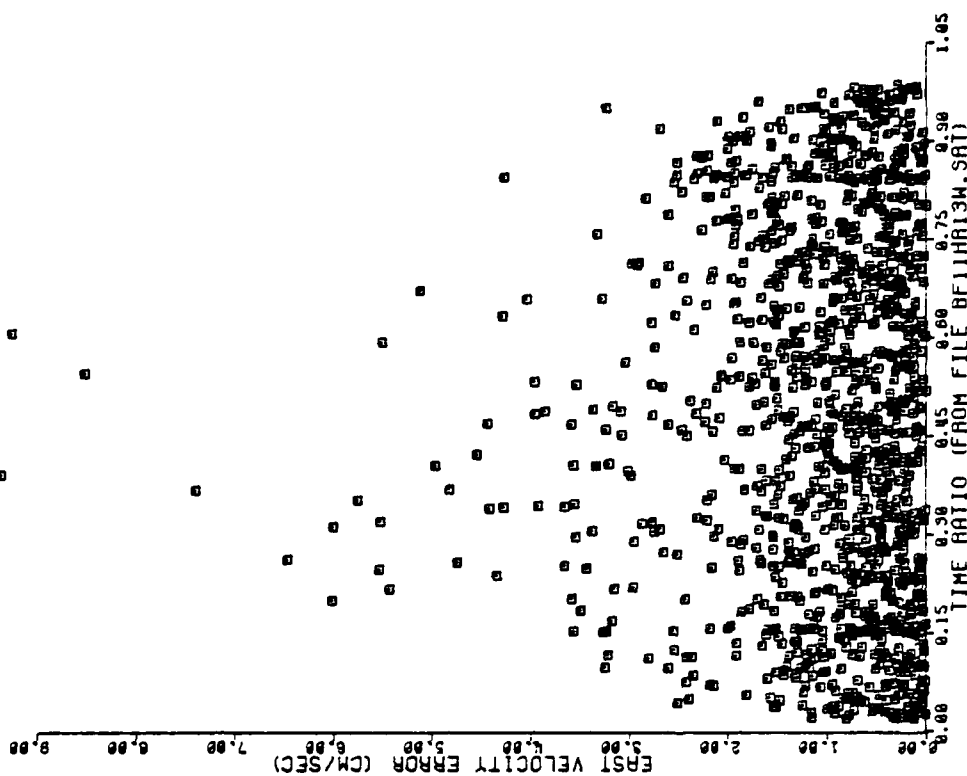


Figure 15. See text for more complete description.

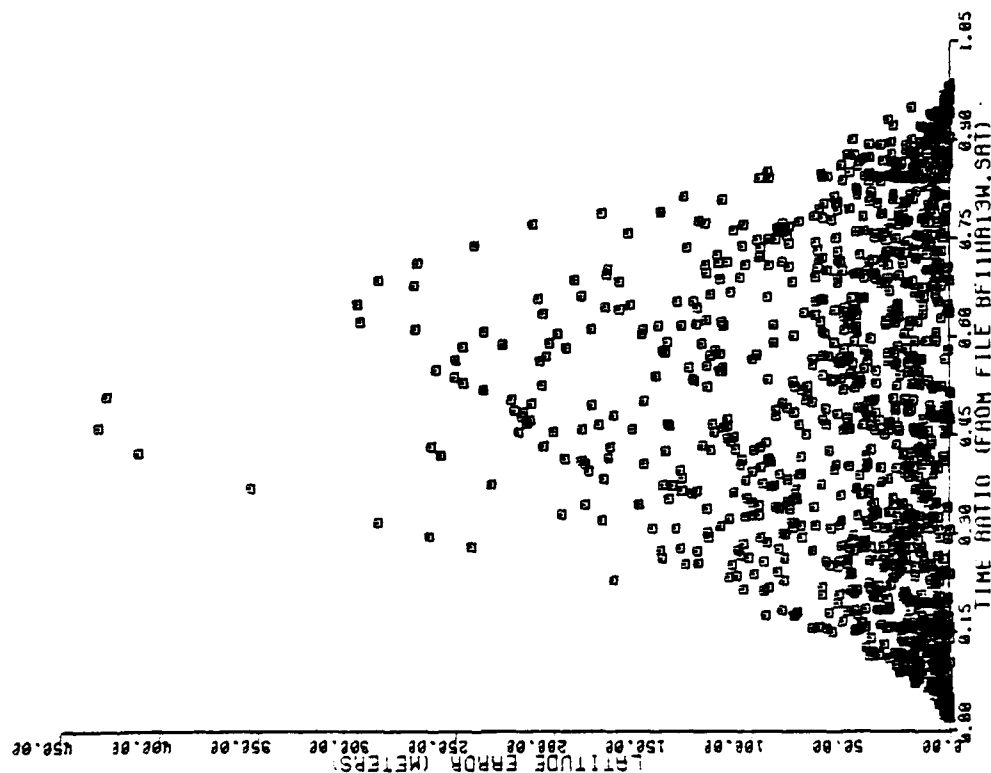


Figure 12. See text for more complete description.

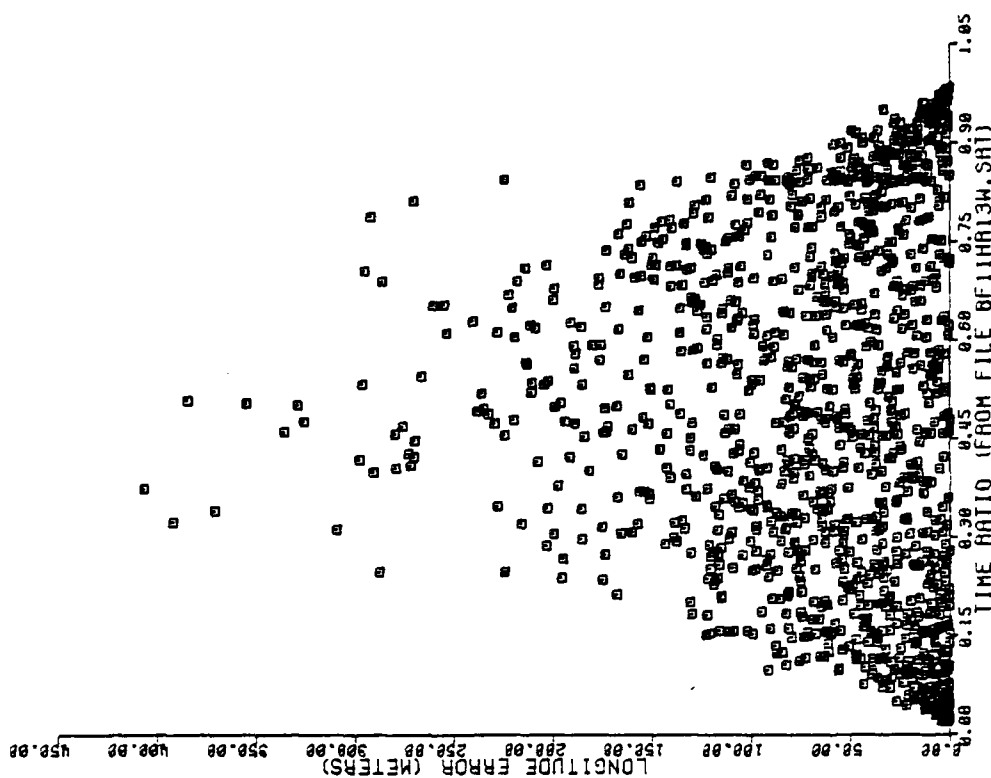


Figure 13. See text for more complete description.

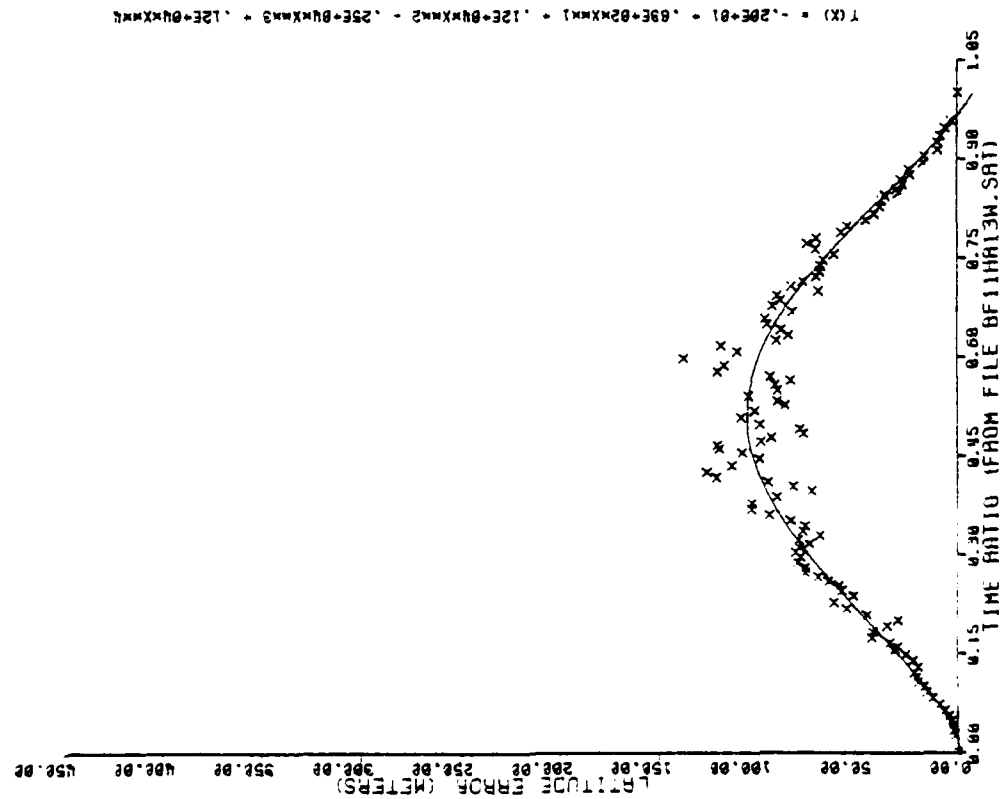


Figure 16. See text for more complete description.

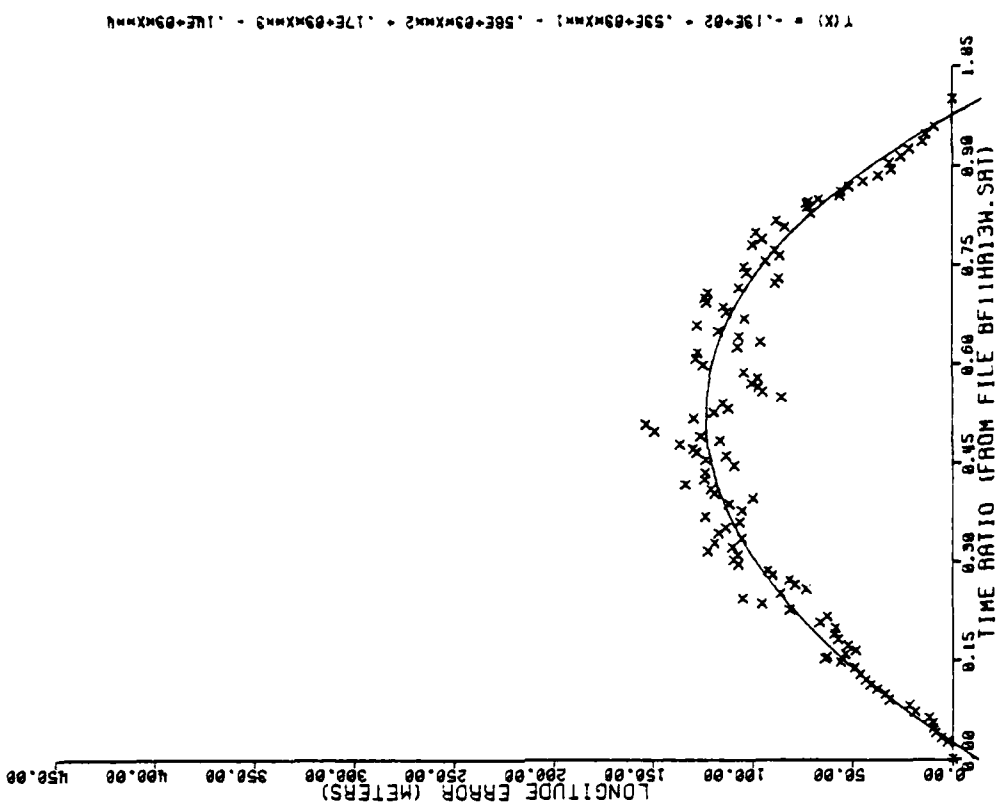


Figure 17. See text for more complete description.

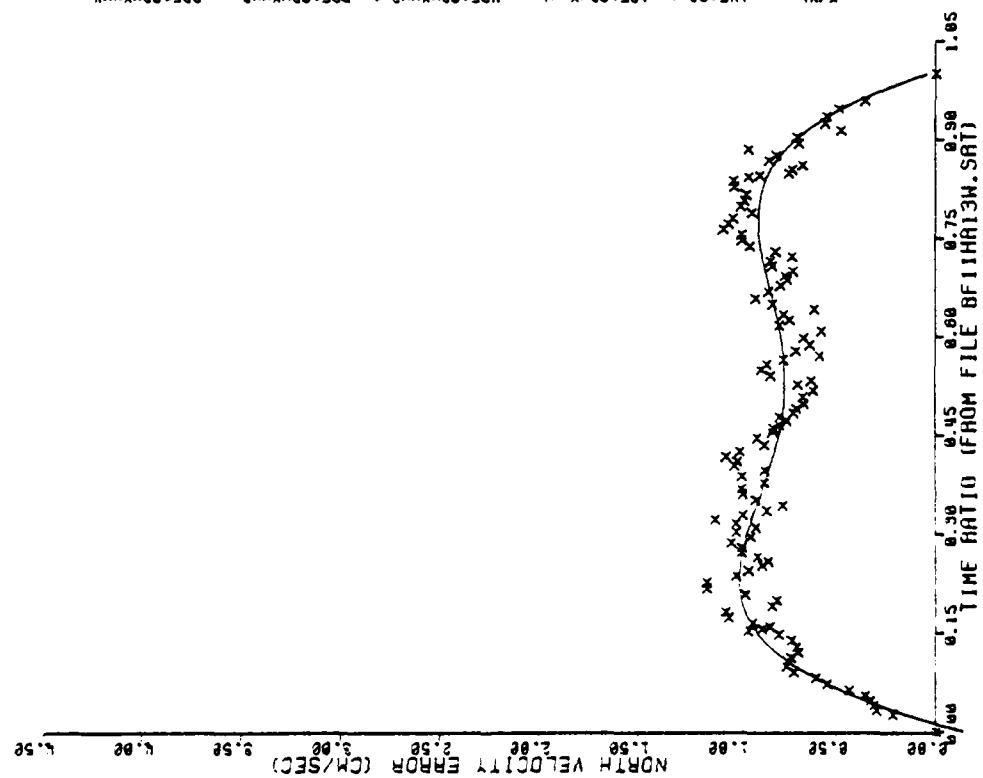


Figure 18. See text for more complete description.

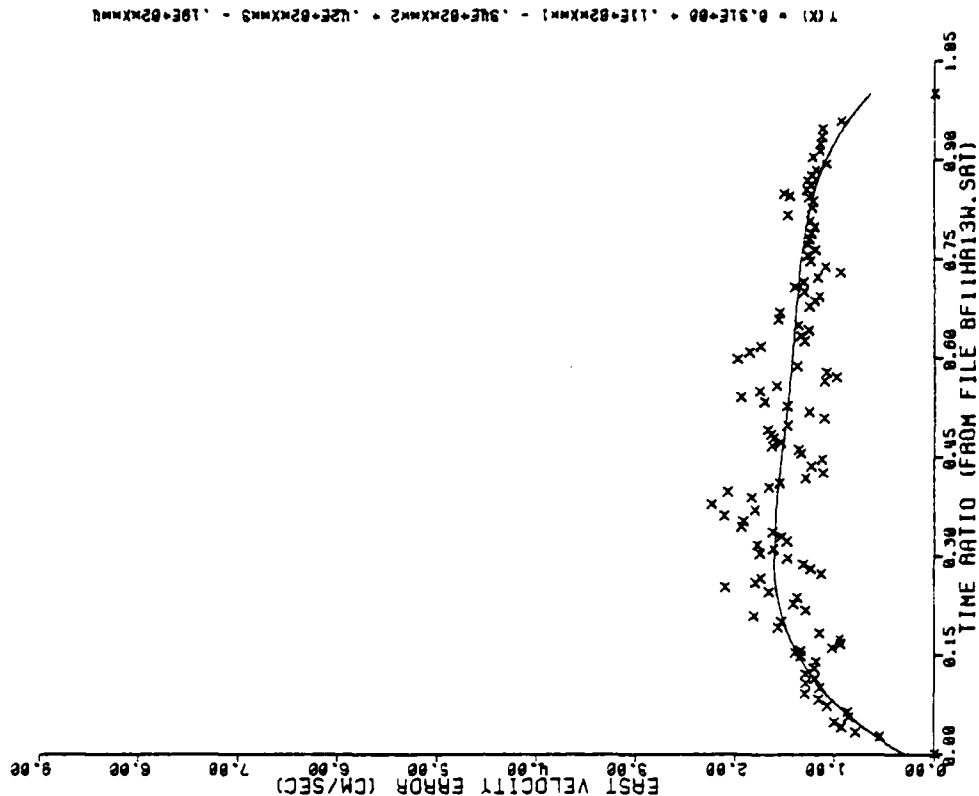


Figure 19. See text for more complete description.

The relative importance of these parameters can be seen in Figure 20. The six error equations corresponding to the total time differences of 1-2, 3-4, 6-7, 11-13, 23-25, and 47-49 hours are shown in the figure. Error estimates increase steadily with the total time differences previously listed. If we confine the data to time ratios from 0.2 to 0.8, a more reliable estimate of the importance of each parameter can be obtained. The justification being that all of the curves have roughly the same low errors near time ratios of 0.0 and 1.0. For any one of the curves in this range, the parameter of time ratio increases the error estimates at most by a factor of 3. The parameter of time difference, however, has a corresponding increase in error estimates as the cube of the time difference. Representing this in a mathematical form, we have:

$$Ee \approx [(3Rt), (Dt^3)] \quad (4)$$

The concept of time ratio was kept in the error equation for two reasons. The first reason was to give a worst error estimate, thereby allowing the user to select the best possible data for analysis. The other reason being that better than 95% of the error estimates provided to the oceanographic data set used the 1-2 hour time difference equation. At this low time difference, the time ratio becomes an equal contributor to estimation of errors.

Estimates of positions and velocities that required navigation points separated by more than 50 hours were given error defaults of 9999.9, even though the position and velocity were calculated. It was felt that after two days, error estimates would be extremely high (see equation 4) and therefore any resulting position and velocity must be flagged to indicate this. Error

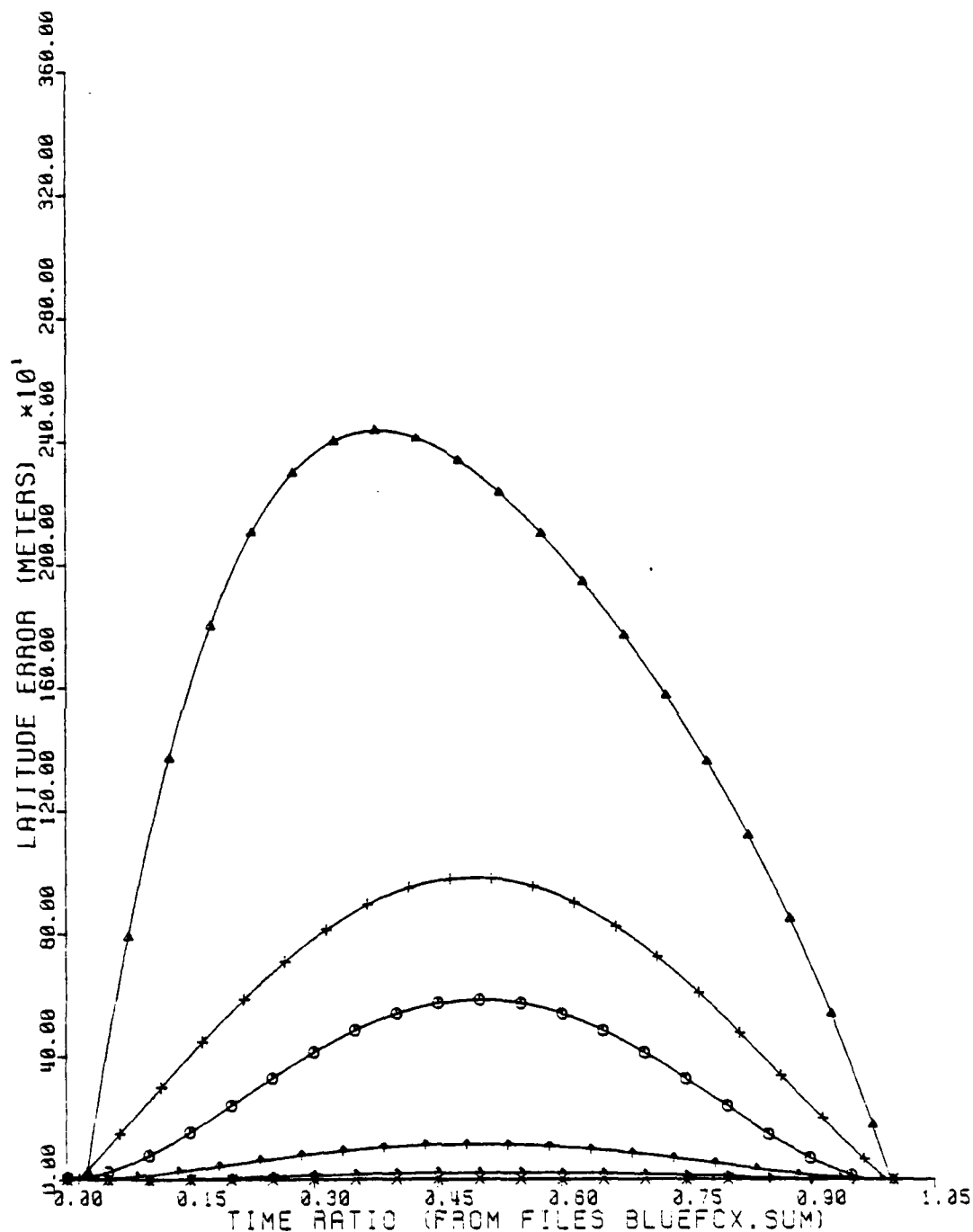


Figure 20. Shows relative importance of the time ratio and total time difference (Dt). The curves represent total time differences calculated from the summer data of Blue Fox. Symbols on the graph indicate the Dt as follows: x (1-2 HRS), diamond (3-4 HRS), up arrow (6-7 HRS), circle (11-13 HRS), + (23-25 HRS), and the triangle (47-49 HRS).

default data are extremely rare in this data set, however it should be reemphasized that the number is not to imply a quantitative estimate but designed to be a flag indicating questionable data.

Error estimates are also calculated to be negative in the cases where the time ratio is close to 0.0 or 1.0. These negative values are converted to zero since at these low time ratios, realistic errors are considered to be close to this value.

Coefficients for the 48 quadratic equations (4 equations per time band * 6 time bands per season * 2 seasons) were then placed in a computer program. With the maximum time difference and time ratio known, approximations to the 95% confidence error estimates could be computed for latitude, longitude, north and east ice velocity. These error estimates for position and ice velocity are in meters and cm/sec respectively. A copy of the subroutine listing that contains the coefficients of the quartic equations is shown in Appendix 2.

OUTPUT FORMAT OF FINAL DATA

This report consists entirely of absolute velocity data consisting of speed and direction at one meter intervals from the base of the ice to the maximum depth obtained by the sensor for any particular station. The limiting depth for all stations was 200 meters and was always obtained during low to moderate relative speeds in the water column. As the relative velocities increased, as in the presence of eddies, a significant portion of the 200 meters of cable was taken up in arching due to the increase in drag on the cable and sensor. During some eddies, maximum sensor depth may only be 140 meters even though the 200 meters of cable was paid out.

Station information is provided in two different formats, one being a numerical listing and the other being a plot of the profile. Two stations are graphically shown on one page of the data report. On the facing page, the corresponding numerical listing of the station is given.

The numerical data consist of other parameters relative to station information and are in some cases abbreviated to save space. A list of the parameters and their meaning is given in Table 3.

The plot of the absolute velocity profile is broken down into two components consisting of speed (shown as the solid line) and direction (shown as the dashed line). The speed scale is shown at the base of the profile. Three different scales for speed are used in the plotting of the figures, their respective maximum velocities being 25, 50 and 75 cm/sec. This was done to show as much structure as possible for the speeds indicated on any one particular profile. The directional scale is shown at the top of the profile and

is a fixed scale from 0 to 360 degrees relative to True North. The labeling of the plot consists of the camp identification, the station number, the date (day-month-year) and the time (GMT).

TABLE 3

BIG BEAR	First Main Camp
CARIBOU	Satellite Camp later to become Main Camp
BLUE FOX	Satellite Camp
SNOWBIRD	Satellite Camp
STATION	Consecutive station listing as shown on analog charts
(***M.)	Maximum depth of station in meters
LAT	Latitude of station in decimal degrees N implying North
LONG	Longitude of station in decimal degrees W implying West
LTER	Estimate of positional error for latitude in meters
LGER	Estimate of positional error for longitude in meters
NIVEL	North component of ice velocity (cm/sec)
EIVEL	East component of ice velocity (cm/sec)
NVER	Estimate of error in north ice velocity (cm/sec)
EVER	Estimate of error in east ice velocity (cm/sec)
DPT	Depth in meters
SPD	Absolute speed in cm/sec
DRN	Direction as related to True North. Directions with a code of 999.9 imply no direction reported.

Note ... All dates and times are given in terms of
Greenwich Mean Time.

FEATURES OBSERVED IN THE PROFILING CURRENT METER DATA

THE EKMAN LAYER

The concept of the planetary boundary layer, or Ekman layer, in which the velocity turns with depth, was first stimulated by observations of drifting ice. Nansen visualized the balances between surface wind stress, friction and Coriolis force which lead to a spiral structure for the current vectors. The idea was developed and set into mathematical form by Ekman. This layer, in which momentum exchange occurs between ice and water, was a central focus for the AIDJEX oceanographic program. Pack-ice forms a particularly stable platform for observations of behavior in the Ekman layer and observations of the Ekman spiral had been made from ice stations before the main AIDJEX experiment.

The PCM data, however, do frequently show indications of a spiral current structure in the upper layers. The vertically-integrated transport of water in the Ekman layer must flow at a right angle to the surface stress. In the northern hemisphere, the integrated flow is 90 degrees to the right of the surface stress. Water at the ice base will move with the ice in the direction of surface stress. Thus the current vectors will spiral downward to the right to achieve a net flow to the right. The exact shape of the spiral depends on the conditions of turbulence and stratification in the layer. A clockwise tendency for the current vectors is often noted in the current profiles. This indicates downward transfer of momentum from ice to water. Counterclockwise turning is also observed but less frequently. It indicates momentum transfer upwards from water to ice. Figures 21a and 21b show the

effect of ice velocity addition on an Ekman spiral. Figure 21a is the relative trace showing a well developed directional shear of approximately 360 degrees. With the addition of the ice velocity vector, the directional shear is somewhat altered as seen in Figure 21b. Notice also the high directional shears at low speeds.

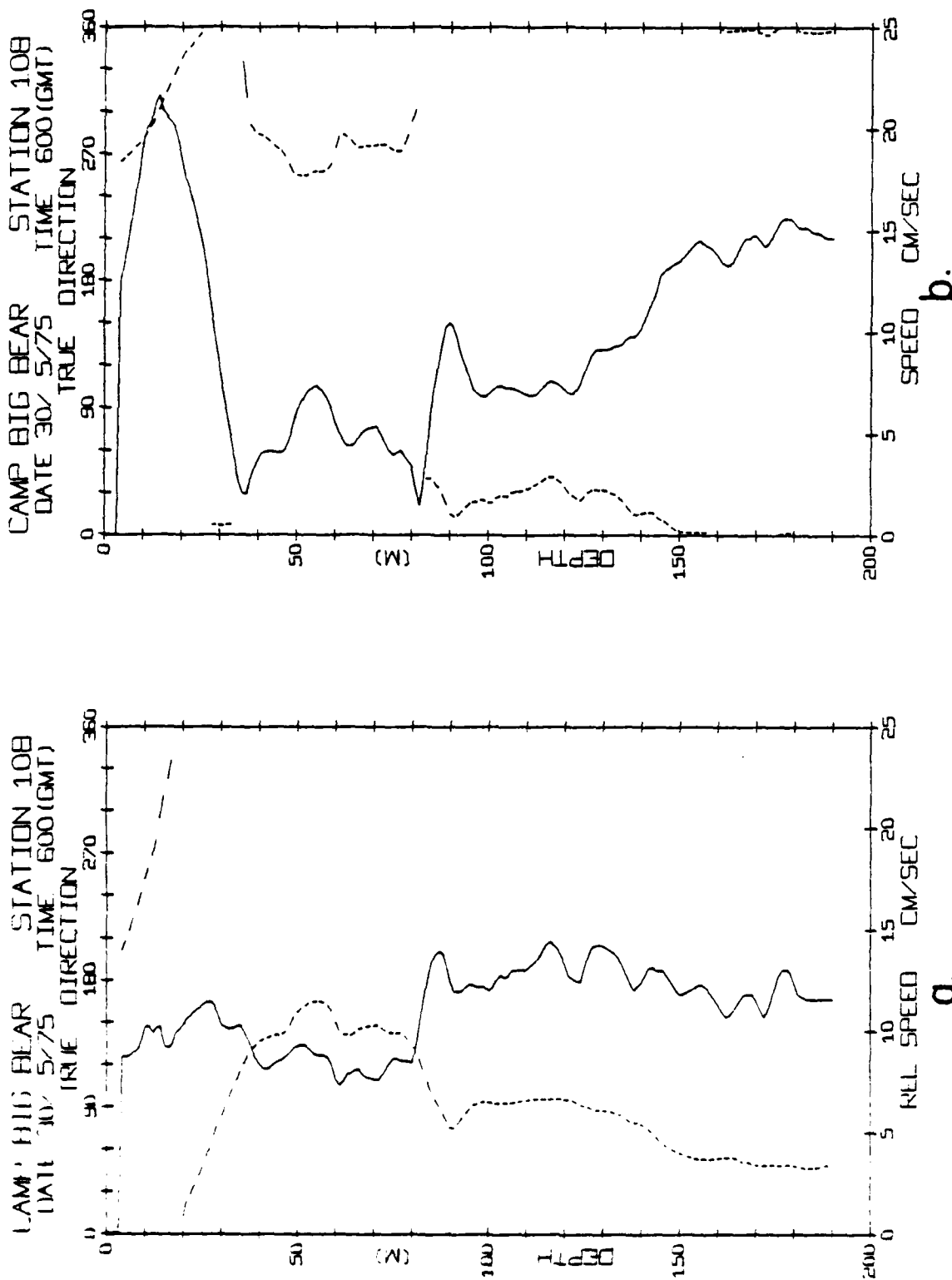


Figure 21. Graphically shows the result of adding the ice velocity vector to an Ekman spiral seen on a relative velocity profile (a) to produce absolute velocity data (b). Notice the change in directional shear between the relative and absolute profile from a depth of 20 to 40 meters.

SUBSURFACE EDDIES

Swift mesoscale undercurrents are one of the most notable oceanographic features observed in the AIDJEX area of the Arctic Ocean. The eddy form of these undercurrents was first described as a result of the 1972 AIDJEX pilot program. The eddies were shown to be 10 to 20 kilometers across and to extend in depth from 50 to 300 meters. The temperature and salinity fields as well as the velocity field are perturbed by the eddies which are baroclinic, and are approximately in geostrophic balance (Hunkins, 1974; Newton et al., 1974).

The 1975-76 data confirm that eddies are a common feature of this part of the Arctic Ocean. Maximum current speeds were found at depths ranging from 80 to 190 meters. In some cases current speeds attain a maximum of 59 cm/sec. Examples of different eddies at the four camps are shown in Figures 22-25. The 1972 data taken at discrete levels showed the rounded shape of the current profile. PCM data also show this but with some small scale structure imposed on the broad nose. There is often little directional shear through the eddy as in Figures 22 and 23, although, in some cases, as in Figures 24 and 25, there may be directional as well as speed shear through the eddy depth.

In Figures 26-29, current velocity vectors at four depths are plotted as a function of time at each of the four camps. Ice velocity vectors are at the top of each diagram. Days are numbered in sequence starting from January 1, 1975 (see Appendix 3). Examples of eddies are evident at each station. The eddy profiled in Figure 23 can be seen between days 151-155 of

Figure 27. The eddy profiled in Figure 24 appears in Figure 28 between days 150-154, while the eddy in Figure 25 appears in Figure 29, days 165-169. The eddy observed at Caribou, Figure 22, can be seen in Figure 26 between days 327 and 330. Although two of the eddies at different camps overlap in time, the camps are separated by 170 kilometers and are undoubtedly two distinct features. The tendency of the current vector to rotate with time is attributed to two reasons, (1) passage of the camp over the eddy, and (2) the translational velocity of the eddy. In most cases, the velocity of the camp is significantly greater than the velocity of the eddy. Profiles taken in this case appear to "freeze" the eddy as the camp passes over.

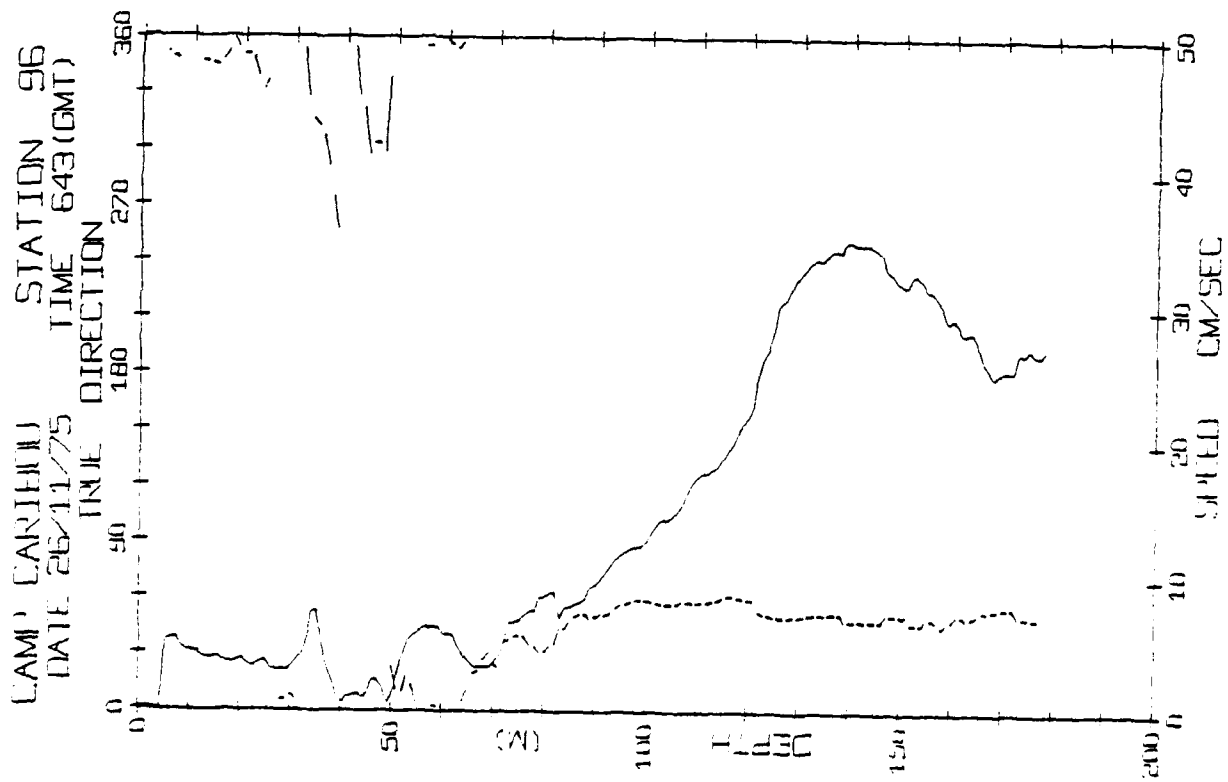


Figure 22. Eddy profile observed at camp Caribou.

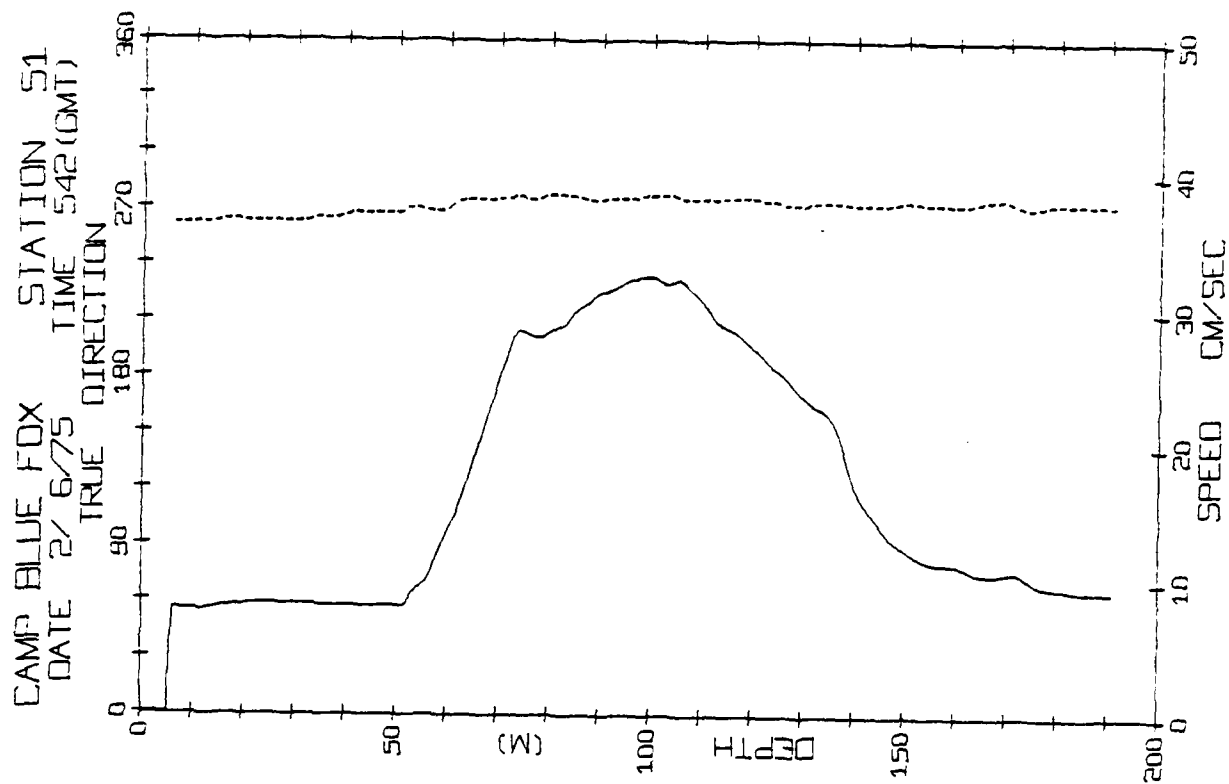


Figure 23. Eddy profile observed at camp Blue Fox.

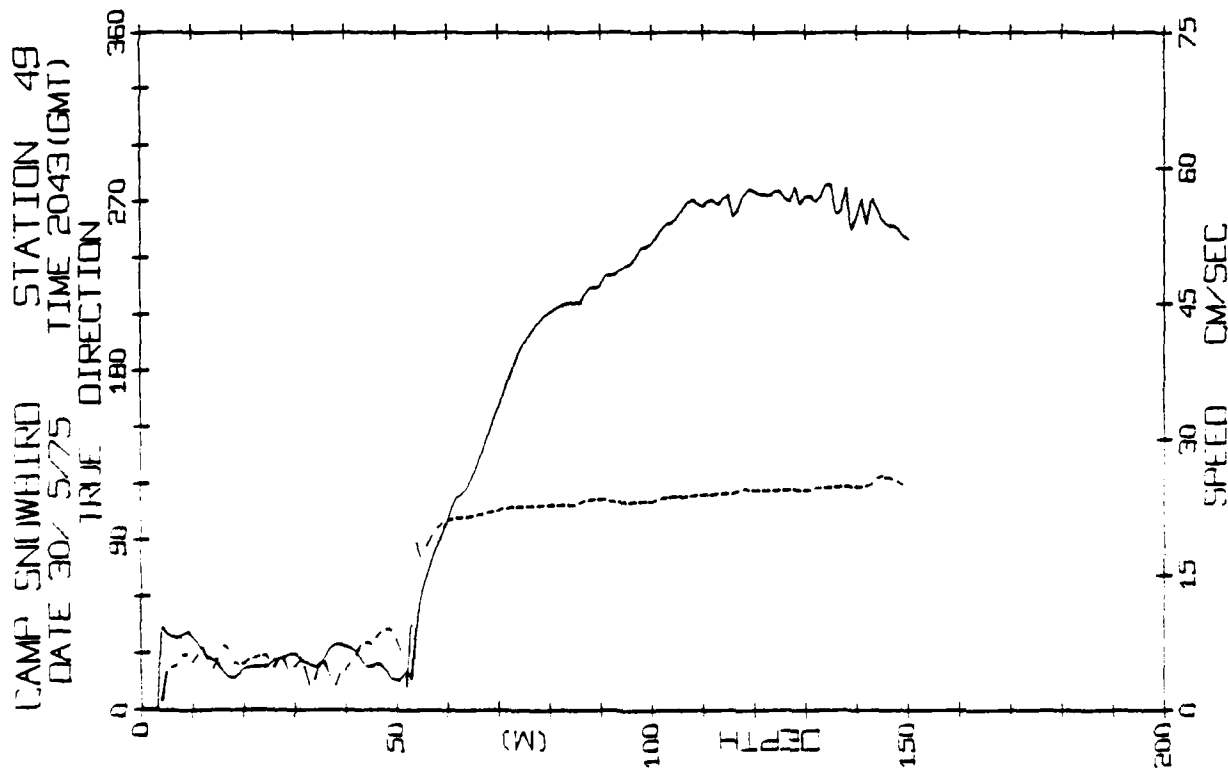


Figure 24. Eddy profile observed at camp Snowbird.

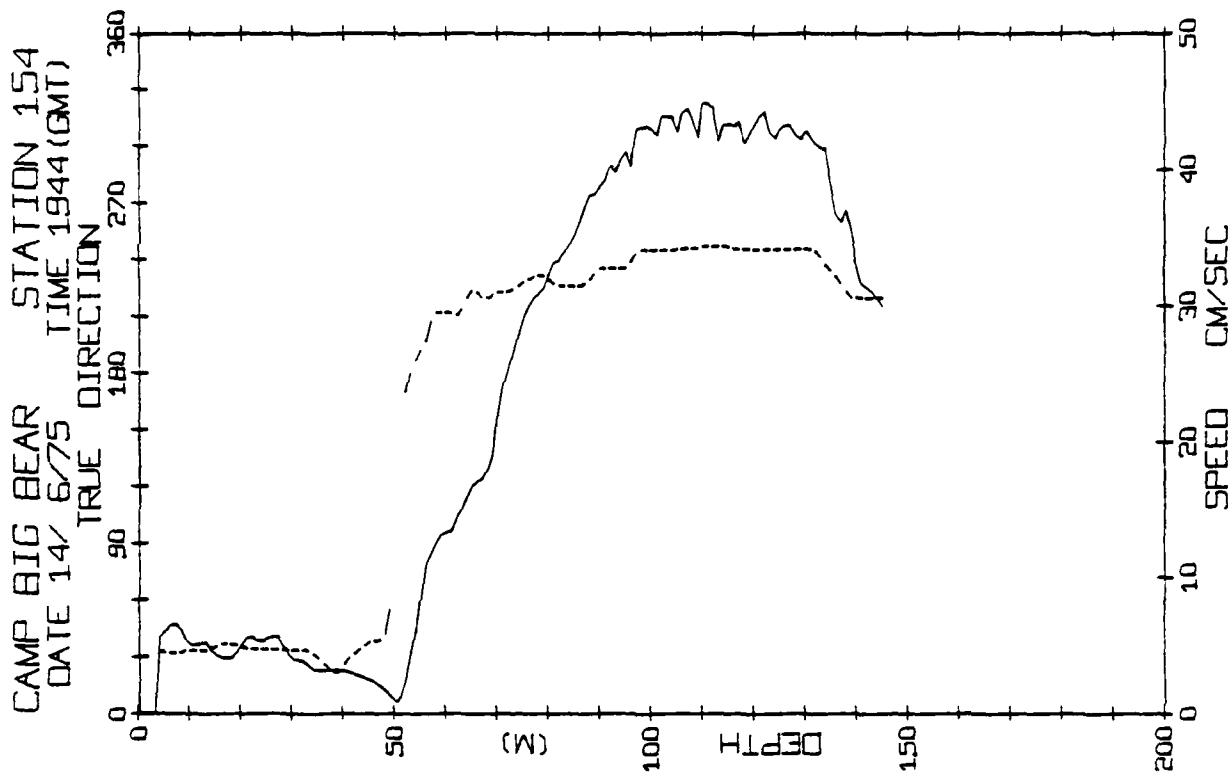


Figure 25. Eddy profile observed at camp Big Bear.

WIND-DRIVEN CURRENTS

Although the effect of wind-driven ice on the Ekman layer has been observed for some time, deeper influences have not been as carefully studied. Wind and ice motion are generally coherent over the array. There should be a clear separation of spatial scales between the ice-driven current scale of order 1000 kilometers and the baroclinic eddy scale of order 10 kilometers. Clear examples of barotropic currents appear in Figure 26, days 324-327, days 335-336, and days 368-370. These currents change little with depth, in contrast to the highly barotropic eddies. Other barotropic currents appear intermittently in Figures 27-29. However, random observations of eddies mask these currents below 50 meters. Such masking can be seen in Figure 27, days 170-174, Figure 28, days 149-156, and Figure 29, days 157-168.

Barotropic behavior is expected for currents generated by a transient wind stress. As the stress becomes less impulsive, more baroclinic motion would be produced. Thus the wind field at the largest time and space scales, the mean winds over the Canada Basin, generate the large scale Beaufort gyre. Short period wind and ice motion will result in a more barotropic response. Barotropic motions would not be reflected in the temperature and salinity profiles. They are detectable only with current meters or absolute measurements of surface height and tilt.

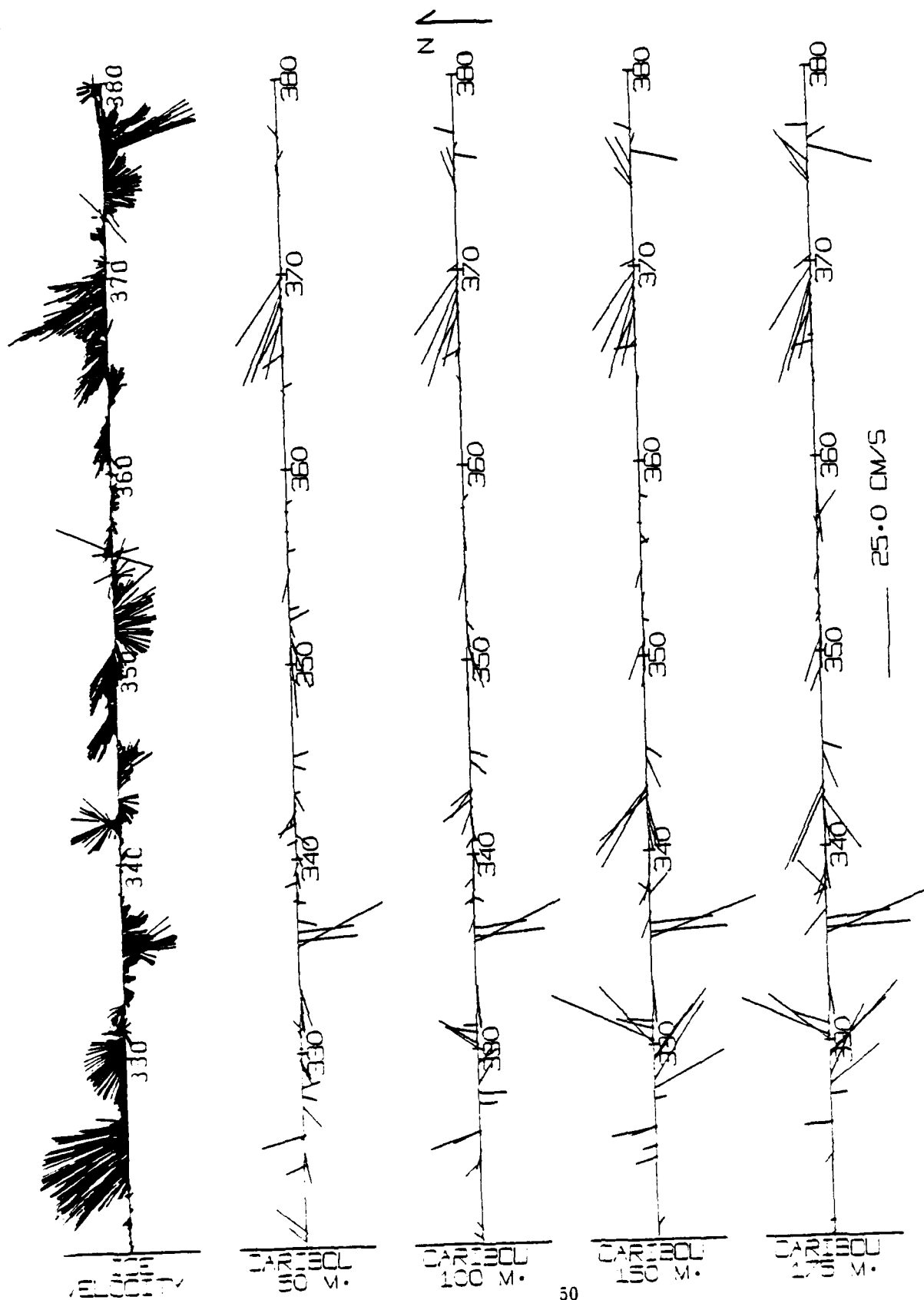


Figure 26. Stick diagram of profiling current meter data from camp Caribou at preselected depths of 50, 100, 150 and 175 meters. Ice velocity observed at camp is plotted at top of diagram. Vector pointing vertically upwards implies movement towards True North. AIDJEX days are shown on the horizontal axis.

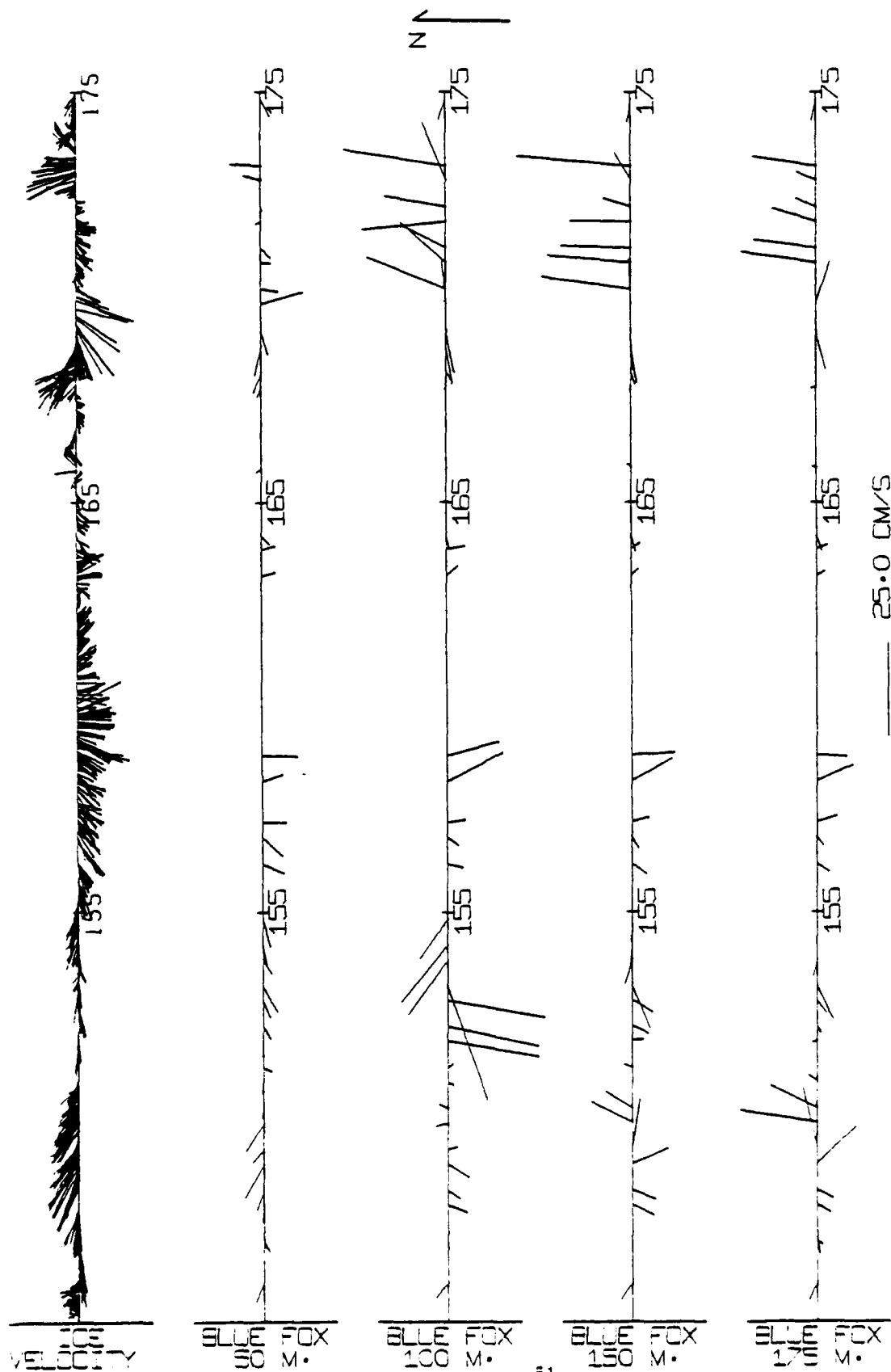


Figure 27. Stick diagram of profiling current meter data from camp Blue Fox at preselected depths of 50, 100, 150 and 175 meters. Ice velocity observed at camp is plotted at top of diagram. Vector pointing vertically upwards implies movement towards True North. AIDJEX days are shown on the horizontal axis.

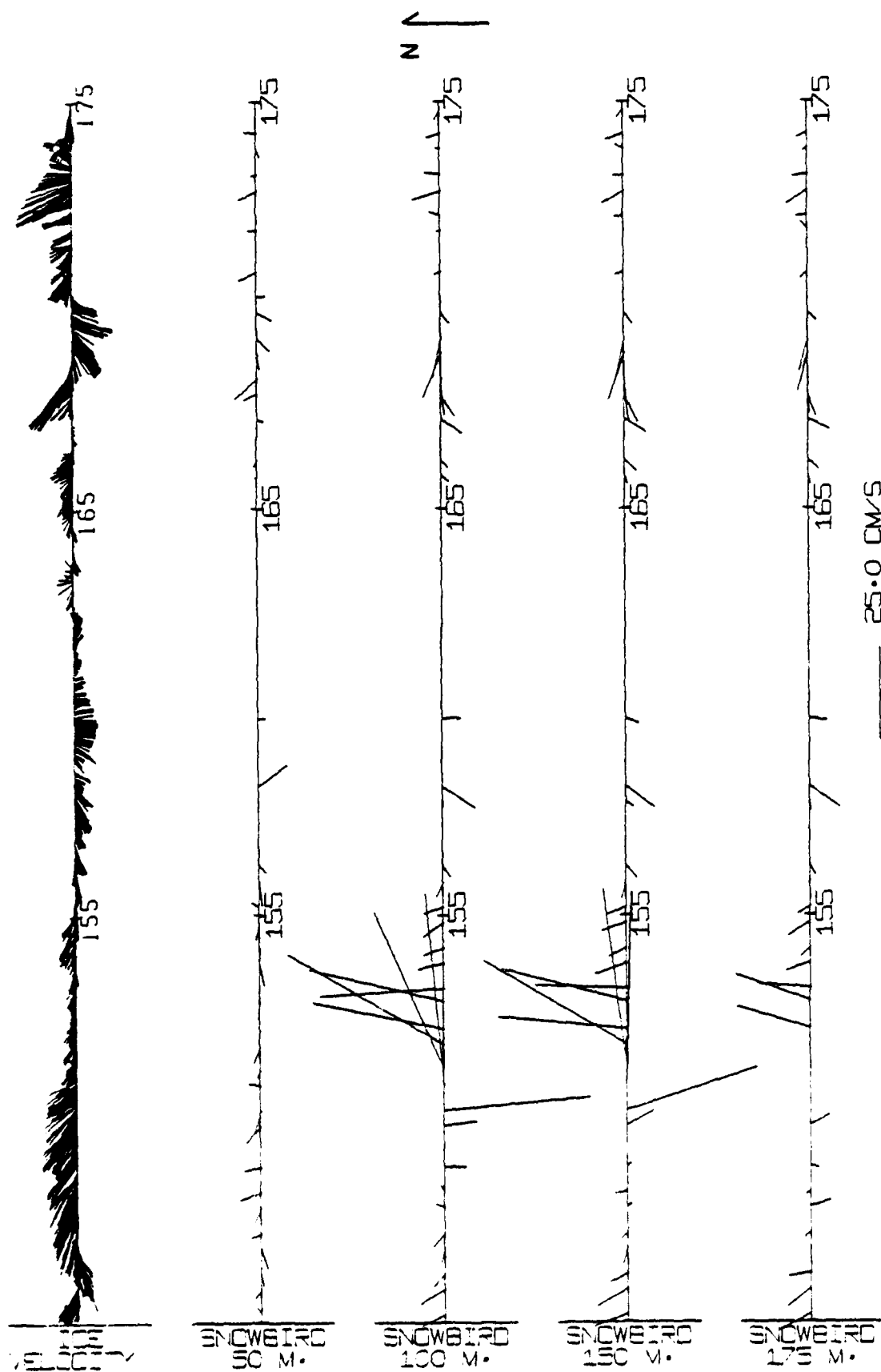


Figure 28. Stick diagram of profiling current meter data through time from camp Snowbird at preselcted depths of 50, 100, 150 and 175 meters. Ice velocity observed at the camp is plotted at top of diagram. Vector pointing vertically upwards implies movement towards True North. ADJEX days are shown on the horizontal axis.

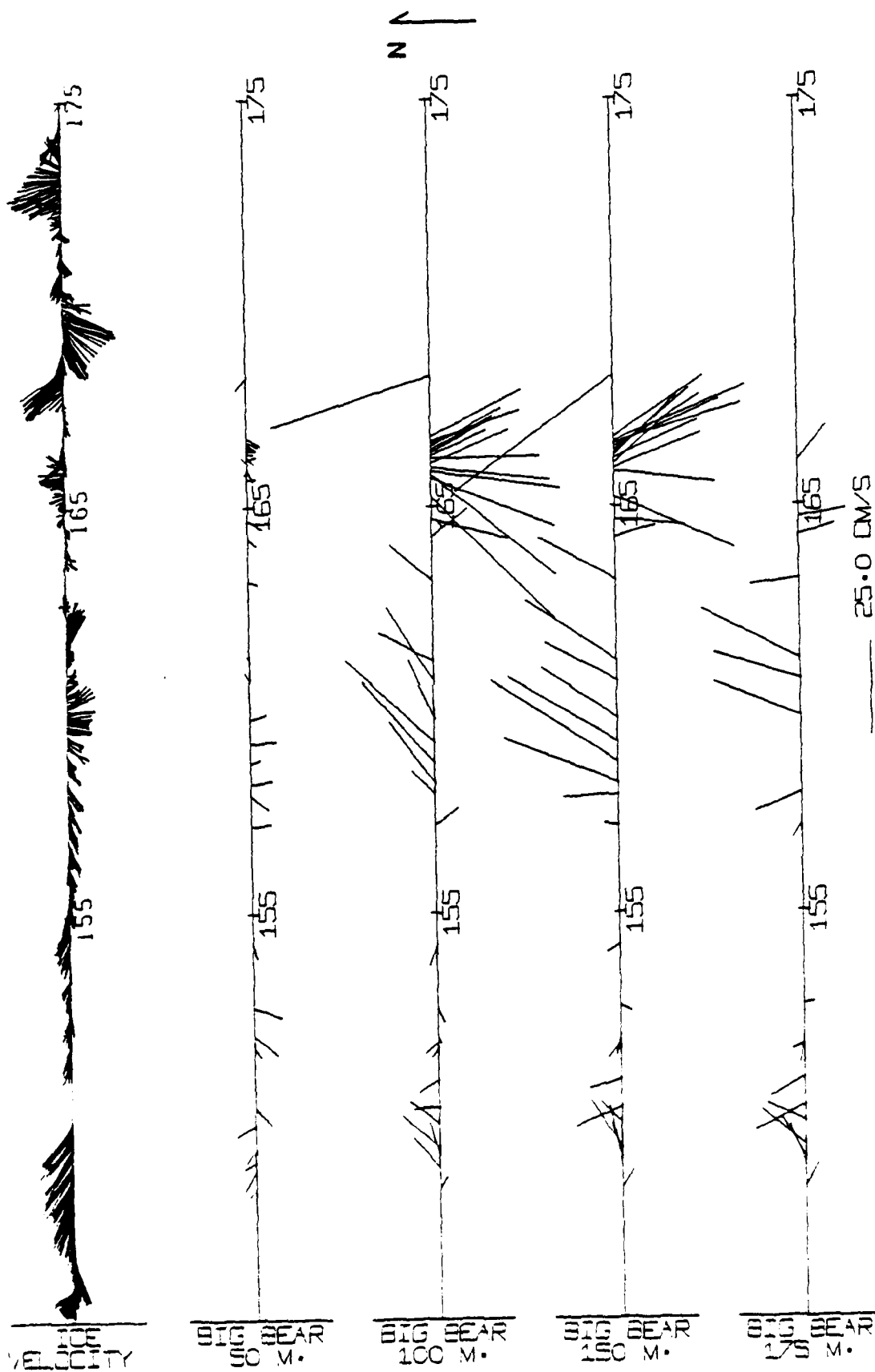


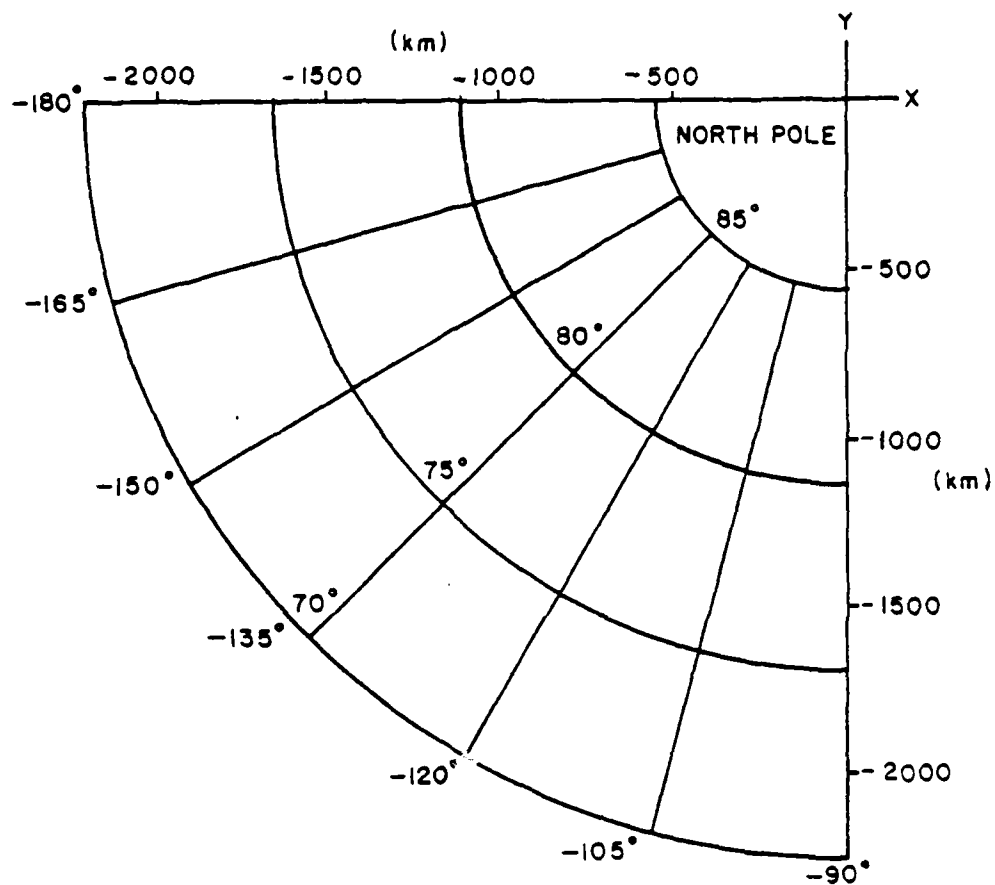
Figure 29. Stick diagram of profiling current meter data from camp Big Bear at preselected depths of 50, 100, 150 and 175 meters. Ice velocity observed at the camp is plotted at top of diagram. Vector pointing vertically upwards implies movement towards True North. AIDJEX days are shown on the horizontal axis.

ACKNOWLEDGEMENTS

The AIDJEX oceanographic program was carried out with the financial support from the Office of Naval Research under contract N00014-76-C-0004.

We are pleased to acknowledge the efforts of the people who operated the current meters at the various camps: Barry Allen, Jai Ardai, Bharrat Dixit, Alan Gill, Brian Hill, and Paul Peltola.

APPENDIX 1
COORDINATE SYSTEMS



Position measurements were made in geographical coordinates (latitude north, longitude east). The smoothing operation was done in a Cartesian system (x,y), where

$$x = 110.949 (90^\circ - \text{latitude}) \cos (\text{longitude}) \text{ (km)}$$

$$y = 110.949 (90^\circ - \text{latitude}) \sin (\text{longitude}) \text{ (km)}$$

APPENDIX 2

Subroutine PSNVEL is written in FORTRAN IV-PLUS and is adapted for use on a PDP 11/70. This subroutine calculates the position and ice velocity from the data base of Thorndike and Manley, 1980. Error estimates are also calculated for latitude, longitude, north and east ice velocities. The coefficients for the error estimate equations are found at the end of the subroutine. The actual equation is written as an arithmetic statement function near the beginning of the listing. Decimal AIDJEX days (Appendix 3) are used extensively in this subroutine.

```

C*****
C***** SUBROUTINE PSNVEL ***** AIDJEX POSITION AND VELOCITY DETERMINATION *****
C*****
C***** PROGRAMMER -- TOM MANLEY *****
C***** DATE -- AUG. 01, 1979 *****
C*****
C***** SUBROUTINE PSNVEL INTERPOLATES BETWEEN TWO CONSECUTIVE POSITIONAL OBSER-
C***** VATIONS USING THE UPDATED SATELLITE-NAVIGATION DATA AS ITS BASE. INTERPOL-
C***** ATION IS BASED ON 2 CUBIC EQUATIONS DEFINED UNIQUELY BY THE BOUNDING NAV-
C***** IIGATION POINTS.
C***** ERROR ESTIMATES TO THE CALCULATED POSITION AND ICE VELOCITY ARE SUPPLIED
C***** TO THE USER VIA THE 48 QUARTIC ERROR EQUATIONS DEFINED AT THE END OF THE
C***** SUBROUTINE.
C***** ALL DATES AND TIMES USED IN THE NAVIGATIONAL DATA SET AND THIS SUBROUTINE
C***** MUST BE GREENWICH MEAN TIME.
C*****
C***** INPUT PARAMETERS ARE AS FOLLOWS:
C***** 1) IUNIT -- THE UNIT NUMBER THAT THE PROGRAM WILL USE IN OPENING THE
C***** APPROPRIATE CAMP FILE. ** NOTE ** THE UNIT WILL BE OPENED
C***** PERMANENTLY UNLESS THE CAMP IDENTIFIER CHANGES. IF THIS IS
C***** TRUE, THEN THE CURRENT FILE WILL BE CLOSED AND THE NEW CAMP
C***** NAVIGATION FILE WILL BE OPEN.
C***** 2) ICAMP -- THE CAMP ALPHANUMERIC(A2) I.E.--> BB,CB,BF,SB,41
C***** 3) IDAY -- THE DAY IN QUESTION
C***** 4) MON -- THE MONTH IN QUESTION
C***** 5) IYR -- THE YEAR IN QUESTION
C***** 6) ITIME -- THE TIME IN QUESTION
C*****
C***** OUTPUT PARAMETERS ARE AS FOLLOWS:
C***** 1) RLAT -- LATITUDE OF THE STATION
C***** 2) RLOD -- LONGITUDE OF THE STATION
C***** 3) VELN -- NORTH VELOCITY IN CM/SEC
C***** 4) VELE -- EAST VELOCITY IN CM/SEC
C***** 5) LTERR -- ERROR ESTIMATE(95% CONFIDENCE) ON LATITUDE( IN METERS)
C***** 6) LGERR -- ERROR ESTIMATE(95% CONFIDENCE) ON LONGITUDE( IN METERS)
C***** 7) VNERR -- ERROR ESTIMATE(95% CONFIDENCE) ON NORTH VELOCITY( IN CM/SEC)
C***** 8) NEERR -- ERROR ESTIMATE(95% CONFIDENCE) ON EAST VELOCITY ( IN CM/SEC)
C*****
C***** ** NOTE ** IF THE LAT. AND LONG ARE NOT AVAILABLE, THE SUBROUTINE
C***** GIVES THE FOLLOWING INFORMATION:
C***** RLAT = 9999.9 RLOD = 9999.9
C***** VELN = 9999.9 VELE = 9999.9
C***** LTERR = 9999.9 LGERR = 9999.9
C***** VNERR = 9999.9 VEERR = 9999.9
C*****
C***** ** NOTE ** IF THE BOUNDING SETS OF NAVIGATION DATA USED TO DEFINE THE
C***** CUBIC EQUATIONS ARE MORE THAN 50 HOURS APART, POSITION AND ICE VELOCITY
C***** WILL BE PROVIDED. DEFAULT VALUES WILL HOWEVER BE ASSIGNED TO THE ERROR
C***** ESTIMATES AS FOLLOWS:
C***** LTERR = 9999.9 LGERR = 9999.9
C***** VNERR = 9999.9 VEERR = 9999.9
C*****
C***** PARAMETERS THAT ARE NOT TO BE CHANGED BY THE USER DURING A RUN:
C***** 1) FILE -- INDICATES THE FILE HAS ALREADY BEEN OPENED
C***** 'YES' IF TRUE, 0 IF NO
C***** THIS CUTS DOWN ON THE AMOUNT OF TIME SPENT OPENING AND CLOS-
C***** ING THE FILE.
C***** 2) ICMPCK - INTEGER CAMP CHECK VARIABLE. THIS HOLDS THE ID "CODE" OF THE
C***** CAMP NUMBER WHOSE NAVIGATION FILE IS CURRENTLY OPENED.
C***** IF ICMPCK AND ICAMP DO NOT AGREE, THEN THE CURRENT FILE
C***** IS CLOSED AND THE NEW NAVIGATION FILE CORRESPONDING TO THE
C***** NEW CAMP ID "ICAMP" IS OPENED. ICMPCK IS THEN CHANGED TO
C***** ICAMP.
C***** 3) IDBSE - THE INTEGER THAT HOLDS THE BASE DAY SUBTRACTION CONSTANT
C***** USED BY THE SUBROUTINE TO DETERMINE THE LOCATION OF ALL THE
C***** DAYS IN THE NAVIGATION FILE. -----> UNDER NO CIRCUMSTANCES
C***** SHOULD THIS VARIABLE BE CHANGED DURING A RUN ON ANY ONE CAMP.
C***** 4) IYRSE - THE INTEGER THAT HOLDS THE BASE YEAR UPON WHICH THE JULIAN
C***** DAY IS DETERMINED. THE BASE YEAR IS DETERMINED THROUGH THE
C***** SUBROUTINE "CPCODE" AS ONE OF THE OUTPUT PARAMETERS. BASE
C***** YEARS WILL CHANGE WITH THE CAMPS SUCH AS THE MAIN AIDJEX
C***** EXPERIMENT BEING BASED ON THE YEAR 1975. THE FRAM 1 DATA IS
C***** BASED ON THE YEAR 1979. =====> UNDER NO CIRCUMSTANCES
C***** SHOULD THIS VARIABLE BE CHANGED DURING A RUN ON ANY ONE CAMP.
C*****
C*****
C*****

```

```

C*****
C****
C*
C**
C**
SUBROUTINE PSNVEL(IUNIT, ICAMP, IDAY, MON, IYR, ITIME, FILE, RLAT, RLON,
1 VELN, VELE, LTERR, LGERR, VNEHR, VEERR, ICMPC, IDBSE, IYRSE)
C**
IMPLICIT REAL*8 (Z)
REAL*8 RAD
REAL LTERR, LGERR
BYTE FILNAM(30), DIR(11)
DIMENSION INAM(4)
C**
C** DEFINE A FUNCTION FOR THE QUARTIC ERROR ESTIMATES
C**
Q(E,D,C,B,A,T)=A*T**4 + B*T**3 + C*T**2 + D*T + E
C**
C** SET AN ERROR CODE
C**
CALL ERRSET(39,.TRUE.,.FALSE.,.TRUE.,.FALSE.,100)
C**
C**
DATA FILNAM(30)/0/
RAD = DASIN(1.0D0)/90.0D0
C**
C** CHECK TO SEE IF FILES ARE ALREADY OPENED
C**
10 IF((ICMPC.EQ.ICAMP) .AND. (FILE .EQ. 'YES')) GO TO 77
IF((ICMPC.NE.ICAMP) .AND. (FILE .NE. 'YES')) GO TO 18
IF((ICMPC.NE.ICAMP) .AND. (FILE .EQ. 'YES')) GO TO 15
15 CLOSE(UNIT=IUNIT)
18 ENCODE(20,23,FILNAM) ICAMP
23 FORMAT('DB2:{310,1}NAVDAT.',A2)
ICMPC = ICAMP
C**
OPEN(UNIT=IUNIT,NAME=FILNAM,TYPE='OLD',
1 ACCESS='DIRECT',FORM='FORMATTED',RECORDSIZE=70)
FILE = 'YES'
C**=> FIND THE BASE YEAR FOR THE CAMP DATA
I = 0
CALL CPCODE(ICAMP,I,ZCAMA8,IYRSE)
C**=> NOW FIND THE BASE JULIAN DAY THAT THE FILE WAS BASED ON USING THE
C**=> EQUATION IREC = (IJULDAY-IBASEDAY)*75 -1
DO 27 IREC = 1,2000
READ(IUNIT'IREC,20) RDAY
IF(RDAY .EQ. 0.0) GO TO 27
IDY = RDAY
IDBSE = IDY - IFIX(((IREC-1)/75.))+.5)
TYPE 31, ICAMP, IDY, IREC, IDBSE
D 31 FORMAT(2X,'CAMP-> ',A2,' DAY/IREC/IDBASE=> ',3I6)
GO TO 28
27 CONTINUE
28 CONTINUE
C**
C** CALCULATE THE RECORD NUMBER OF THE FIRST NAVIGATION POINTS CLOSEST
C** TO THE TIME OF THE STATION IN QUESTION
C**
77 CALL JULDAY(IDAY,MON,IYR,ITIME,IYRSE,RDAY)
IADY = RDAY
IREC = (IADY - IDBSE)*75 + 1
TYPE 66, IREC, IADY, IAPER
D 66 FORMAT(2X,'IREC/IADY/IAPER--> ',3I6)
C**
C** CHECK FOR BAD RECORD NUMBER
C**
IF(IREC .GE. 1) GO TO 79
45 RLAT = 9999.9
RLON = 9999.9
VELN = 9999.9
VELE = 9999.9
VNEHR = 9999.9
VEERR = 9999.9
LTERR = 9999.9
LGERR = 9999.9
GO TO 300
C**
C** READ THE RECORD
C**
79 READ(IUNIT'IREC,20) DAYS,RLATS,RLONS,VELNS,VELES

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20 FORMAT(2X,3F12.6,2F8.1)
C**
C** IF THE BEGINNING RECORD HAS NO INFORMATION ON IT, KEEP INCREMENTING
C** THE IREC COUNTER UNTIL A RECORD WITH INFORMATION HAS BEEN FOUND
C**
      IF(DAYS .NE. 0.0) GO TO 83
      IREC = IREC + 1
      GO TO 79
C**
C** TURN THE DESIRED TIME INTO DECIMAL DAYS
C**
      83 IHR = ITIME/100.0 + .01
      IMN = (ITIME-(IHR*100))
      DAYSTN = (IADY*1.0) + (IHR/24.0) + (IMN/1440.)
      IDYSTN = DAYSTN
      TYPE 87, DAYSTN
D
D 87 FORMAT(2X,'TIME OF DESIRED POINT => ',F12.6)
C**
C** CHECK TO SEE WHICH RECORD TO READ FOR THE BOUNDING INFORMATION
C**
C**
      IF((IDYSTN.LT.IDBSE) .AND. (IDYSTN.GT.500)) GO TO 45
      IF((IDYSTN.EQ.IDBSE) .AND. (DAYSTN.LT.DAYS)) GO TO 45
      IF(DAYSTN .LT. DAYS) GO TO 50
      IF(DAYSTN .GE. DAYS) GO TO 100
C** READ PREVIOUS RECORD
C**
      50 IREC = IREC -1
      READ(IUNIT,IREC,20) DAYE,RLATE,RLONE,VELNE,VELEE
C**=> CHECK FOR RECORD WITH NO DATA LISTED ON IT
      IF((RLATE.EQ.0.0).OR.(RLONE.EQ.0.0)) GO TO 50
C* => REORIENT THE DATA SO DAYS IS FIRST IN TIME, DAYE IS LAST
      DY = DAYS
      RL = RLATS
      RG = RLONS
      VN = VELNS
      VE = VELES
      DAYS = DAYE
      RLATS = RLATE
      RLONS = RLONE
      VELNS = VELNE
      VELES = VELEE
      DAYE = DY
      RLATE = RL
      RLONE = RG
      VELNE = VN
      VELEE = VE
      GO TO 200
C**
C** READ FOLLOWING RECORD
C**
      100 IREC = IREC + 1
      READ(IUNIT,IREC,20,ERR=45) DAYE,RLATE,RLONE,VELNE,VELEE
C**=> CHECK FOR RECORD WITH NO DATA LISTED ON IT
      IF((RLATE.EQ.0.0).OR.(RLONE.EQ.0.0)) GO TO 100
      IF(DAYSTN .LE. DAYE) GO TO 200
      DAYS = DAYE
      RLATS = RLATE
      RLONS = RLONE
      VELNS = VELNE
      VELES = VELEE
      GO TO 100
C**
C** START WITH TIME INTERPOLATION FOR LATITUDE AND VELOCITY NORTH
C**
C**=> CHANGE TIME POINTS IN DAYS TO TIME POINTS IN SECONDS
      200 CONTINUE
D
D TYPE 43, DAYS,RLATS,RLONS,VELNS,VELES
D 43 FORMAT(2X,'START=> ',3F12.6,2F8.1)
D
D TYPE 24, DAYE,RLATE,RLONE,VELNE,VELEE
D 24 FORMAT(2X,'END => ',3F12.6,2F8.1)
      ZT1 = DAYS*86400.D0
      ZT2 = DAYE*86400.D0
      ZTS = DAYSTN*86400.D0
      ZC = ZT2 - ZT1
C**=> CHANGE THE VEL TO DEGREES (LAT OR LONG)/SEC
      ZVELNS = VELNS/11094900.D0
      ZVELNE = VELNE/11094900.D0
      ZVELES = VELES/(11094900.D0*DCOS(RLATS*RAD))
      ZVELEE = VELEE/(11094900.D0*DCOS(RLATE*RAD))

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ZATNT = ZTS - ZT1
ZALP = (ZVELNE - ZVELNS)/(3.00*ZC**2)
ZBET = -2.00/(3.00*ZC)
ZB = (RLATE-RLATS-ZVELNS*ZC-ZALP*ZC**3)/(ZBET*ZC**3+ZC**2)
ZA = ZALP + ZBET*ZB
RLAT = (ZA*ZATNT**3)+(ZB*ZATNT**2)+(ZVELNS*ZATNT)+RLATS
ZVELN = (3.00*ZA*ZATNT**2)+(2.00*ZB*ZATNT)+ZVELNS

C**
C** NOW FIGURE OUT THE LONGITUDE AND THE VELOCITY EAST
C**
ZALP = (ZVELEE - ZVELES)/(3.00*ZC**2)
ZBET = -2.00/(3.00*ZC)
ZB = (RLONE-RLONS-ZVELES*ZC-ZALP*ZC**3)/(ZBET*ZC**3+ZC**2)
ZA = ZALP + ZBET*ZB
RLON = (ZA*ZATNT**3)+(ZB*ZATNT**2)+(ZVELES*ZATNT)+RLONS
ZVELE = (3.00*ZA*ZATNT**2)+(2.00*ZB*ZATNT)+ZVELES
C** CHANGE VEL BACK TO CM/SEC
VELN = ZVELN*11094900.D0
VELE = ZVELE*(11094900.D0*DCOS(RLAT*RAD))
D
TYPE 57, RLAT, RLON, VELN, VELE
D 57 FORMAT(2X, 'LAT/LON/VN/VE=> ', 4F10.4)
C**
C** CALCULATE TIME RATIO AND TOTAL TIME DIFFERENCE FOR ERROR ESTIMATES
C**
SDIF = ZATNT/3.600E3
TDIF = ZC/3.600E3
T = SDIF/TDIF
D
TYPE 47, SDIF, TDIF, T
D 47 FORMAT(2X, 'SDIF/TDIF/T=> ', 3(F8.4, 1X))
C**
C** CHECK FOR SUMMER OR WINTER DATA
C**
IF((IDYSTN.LT.182).OR.(IDYSTN.GT.273)) GO TO 205
C**==> THIS IS SUMMER DATA
C**==> NOW CHECK FOR THE SDIF TIME BOUNDS
IF(TDIF.GT.2.00) GO TO 110
C**==> THIS IS ERROR DATA BETWEEN 1 AND 2 HOURS
LTERR=Q(.192869,-.575945E1,.700460E2,-.134647E3,.702872E2,T)
LGERR=Q(.202941,-.468376E1,.903089E2,-.179822E3,.940866E2,T)
VNERR=Q(-.264094E-1,.164596E1,-.672279E1,.976800E1,-.466455E1,T)
VEERR=Q(.190725E-1,.182885E1,-.574349E1,.761949E1,-.374149E1,T)
GO TO 300
110 IF(TDIF.GT.4.00) GO TO 120
C**==> THIS IS ERROR DATA BETWEEN 3 AND 4 HOURS
LTERR=Q(.190364E1,-.466727E2,.553386E3,-.983192E3,.474845E3,T)
LGERR=Q(.391057E1,-.105472E3,.118601E4,-.209909E4,.101307E4,T)
VNERR=Q(-.220280,-.878184E1,-.362110E2,.544938E2,-.267458E2,T)
VEERR=Q(-.466398,.180550E2,-.748721E2,.114565E3,-.574648E2,T)
GO TO 300
120 IF(TDIF.GT.7.00) GO TO 130
C**==> THIS IS ERROR DATA BETWEEN 6 AND 7 HOURS
LTERR=Q(-.434573E1,.810672E2,.156793E4,-.335384E4,.170874E4,T)
LGERR=Q(.406848E1,-.644965E2,.260012E4,-.513404E4,.259836E4,T)
VNERR=Q(-.168660,-.223409E2,-.950057E2,.146842E3,-.745103E2,T)
VEERR=Q(.461851E-1,.212938E2,-.807473E2,.119812E3,-.606414E2,T)
GO TO 300
130 IF(TDIF.GT.13.00) GO TO 140
C**==> THIS IS ERROR DATA BETWEEN 11 AND 13 HOURS
LTERR=Q(.551924E1,-.312993E2,.945618E4,-.188342E5,.939432E4,T)
LGERR=Q(.203458E2,-.355332E3,.103268E5,-.194064E5,.940165E4,T)
VNERR=Q(-.450471,-.627998E2,-.266976E3,.413131E3,-.209935E3,T)
VEERR=Q(-.399648,.599848E2,-.249716E3,.387004E3,-.197477E3,T)
GO TO 300
140 IF(TDIF.GT.25.00) GO TO 150
C**==> THIS IS ERROR DATA BETWEEN 23 AND 25 HOURS
LTERR=Q(-.407233E2,.278504E4,.285207E4,-.116745E5,.605943E4,T)
LGERR=Q(-.170113E3,.661352E4,-.170675E5,.213869E5,-.110412E5,T)
VNERR=Q(.169221E1,.297300E2,-.644268E2,.657767E2,-.309871E2,T)
VEERR=Q(.250704E1,.164704E2,-.889819E1,-.181705E2,.106707E2,T)
GO TO 300
150 IF(TDIF.GT.50.00) GO TO 160
C**==> THIS IS ERROR DATA BETWEEN 47 AND 49 HOURS
LTERR=Q(-.429890E3,.193509E5,-.443267E5,.406707E5,-.152876E5,T)
LGERR=Q(-.341247E3,.155251E5,-.331577E5,.317635E5,-.140253E5,T)
VNERR=Q(.419435E1,.583175E2,-.252295E3,.377632E3,-.186022E3,T)
VEERR=Q(.143486E1,.854762E2,-.354166E3,.525771E3,-.256694F3,T)
GO TO 300
160 CONTINUE
C**==> NO DATA FOR TDIF GREATER THAN 50 HOURS, SET TO DEFAULT
VEERR= 9999.9

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VNERR= 9999.9
LGERR= 9999.9
LTERR= 9999.9
GO TO 300
C**=> THIS IS THE WINTER DATA SET
205 IF(TDIF .GT. 2.00) GO TO 210
C**=> THIS IS ERROR DATA BETWEEN 1 AND 2 HOURS
LTERR=Q(.247002,-.141055E1,.239450E2,-.475730E2,.248538E2,T)
LGERR=Q(.377059,-.408318E1,.556174E2,-.108728E3,.568677E2,T)
VNERR=Q(.735694E-2,.658285,-.274560E1,.408656E1,-.201109E1,T)
VEERR=Q(.214845E-1,.138559E1,-.561334E1,.830719E1,-.412921E1,T)
GO TO 300
210 IF(TDIF .GT. 4.00) GO TO 220
C**=> THIS IS ERROR DATA BETWEEN 3 AND 4 HOURS
LTERR=Q(.136832E1,-.282074E2,.306371E3,-.542406E3,.262633E3,T)
LGERR=Q(.286660E1,-.795060E2,.941639E3,-.171066E4,.846418E3,T)
VNERR=Q(-.602995E-1,.418834E1,-.178370E2,.275296E2,-.138677E2,T)
VEERR=Q(-.284836,.133084E2,-.557777E2,.852540E2,-.426655E2,T)
GO TO 300
220 IF(TDIF .GT. 7.00) GO TO 230
C**=> THIS IS ERROR DATA BETWEEN 6 AND 7 HOURS
LTERR=Q(-.549117,.123283E2,.594540E3,-.118623E4,.577537E3,T)
LGERR=Q(.504752E1,-.109335E3,.182691E4,-.340773E4,.168563E4,T)
VNERR=Q(-.798305E-2,.646701E1,-.240102E2,.351633E2,-.176241E2,T)
VEERR=Q(-.740555E-1,.140985E2,-.533356E2,.794973E2,-.404684E2,T)
GO TO 300
230 IF(TDIF .GT. 13.00) GO TO 240
C**=> THIS IS ERROR DATA BETWEEN 11 AND 13 HOURS
LTERR=Q(-.196154E1,.832318E2,.121998E4,-.251663E4,.120790E4,T)
LGERR=Q(-.128723E2,.528756E3,-.563005E3,.169304E3,-.136860E3,T)
VNERR=Q(-.137067,.124627E2,-.464115E2,.662067E2,-.320744E2,T)
VEERR=Q(.305289,.113129E2,-.340711E2,.418278E2,-.187287E2,T)
GO TO 300
240 IF(TDIF .GT. 25.00) GO TO 250
C**=> THIS IS ERROR DATA BETWEEN 23 AND 25 HOURS
LTERR=Q(-.527531E2,.194688E4,-.397901E4,.326826E4,-.120623E4,T)
LGERR=Q(.209375E2,.402766E3,.411796E4,-.889242E4,.435372E4,T)
VNERR=Q(.626779,-.832293E1,-.279371E2,.367508E2,-.172505E2,T)
VEERR=Q(.728756,.208960E2,-.899374E2,.136860E3,-.682694E2,T)
GO TO 300
250 IF(TDIF .GT. 50.00) GO TO 260
C**=> THIS IS ERROR DATA BETWEEN 47 AND 49 HOURS
LTERR=Q(-.154057E3,.517674E4,-.147802E5,.182932E5,-.858630E4,T)
LGERR=Q(.608849E1,.148286E4,.770615E4,-.178465E5,.865979E4,T)
VNERR=Q(.619958,.843798E1,-.265352E2,.351965E2,-.165618E2,T)
VEERR=Q(.110754E1,.976905E1,-.314405E2,.435897E2,-.216482E2,T)
GO TO 300
C**=> NO DATA FOR TDIF GREATER THAN 50 HOURS, SET TO DEFAULT
260 VEERR= 9999.9
VNERR= 9999.9
LGERR= 9999.9
LTERR= 9999.9
C**
C** IF THE ERROR ESTIMATE EQUATIONS PROVIDE NEGATIVE VALUES SET THEM
C** TO ZERO
C**
300 IF(LTERR .LT. 0.0) LTERR = 0.0
IF(LGERR .LT. 0.0) LGERR = 0.0
IF(VNERR .LT. 0.0) VNERR = 0.0
IF(VEERR .LT. 0.0) VEERR = 0.0
D
D TYPE 320, LTERR, LGERR, VNERR, VEERR
D 320 FORMAT(2X, 'LT/LG/VN//VE ERR=> ',4F10.4)
C**
C** THATS ALL FOLKS
C**
RETURN
END

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APPENDIX 3

CONVERSION TABLE FOR AIDJEX DAYS TO CALENDAR DAYS

For the main experiment, AIDJEX adopted a convention of numbering days consecutively, beginning with day 1 = 01 January, 1975 and ending with day 500 = 14 May, 1976.

In the conversion table, the first column is the AIDJEX day, the second is the corresponding day of 1975 or 1976 and the third entry is the calendar date.

Appendix 3 - Conversion Table

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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RESULTS

The following section of the data report provides all of the absolute velocity PCM data taken at camp Caribou during the 1975-76 Arctic Ice Dynamics Joint Experiment. Numerical listings and corresponding plots of the data are given.

PCM STATION LISTINGS

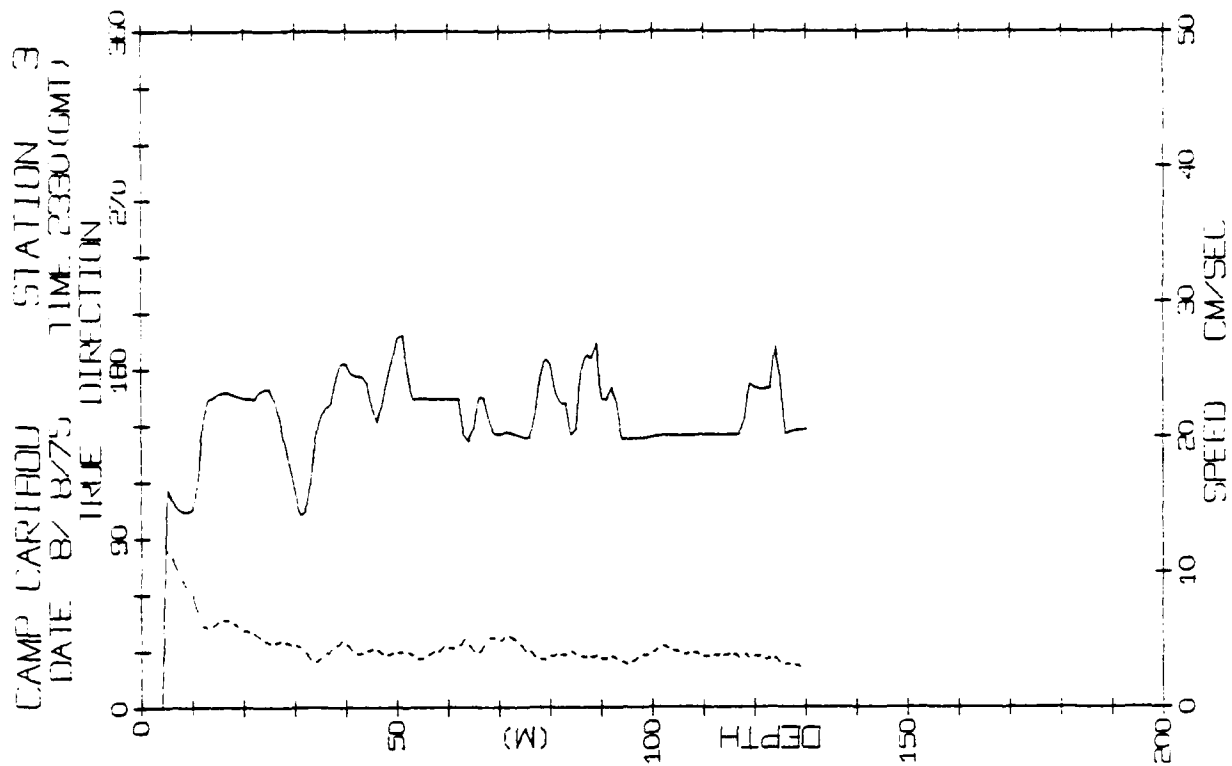
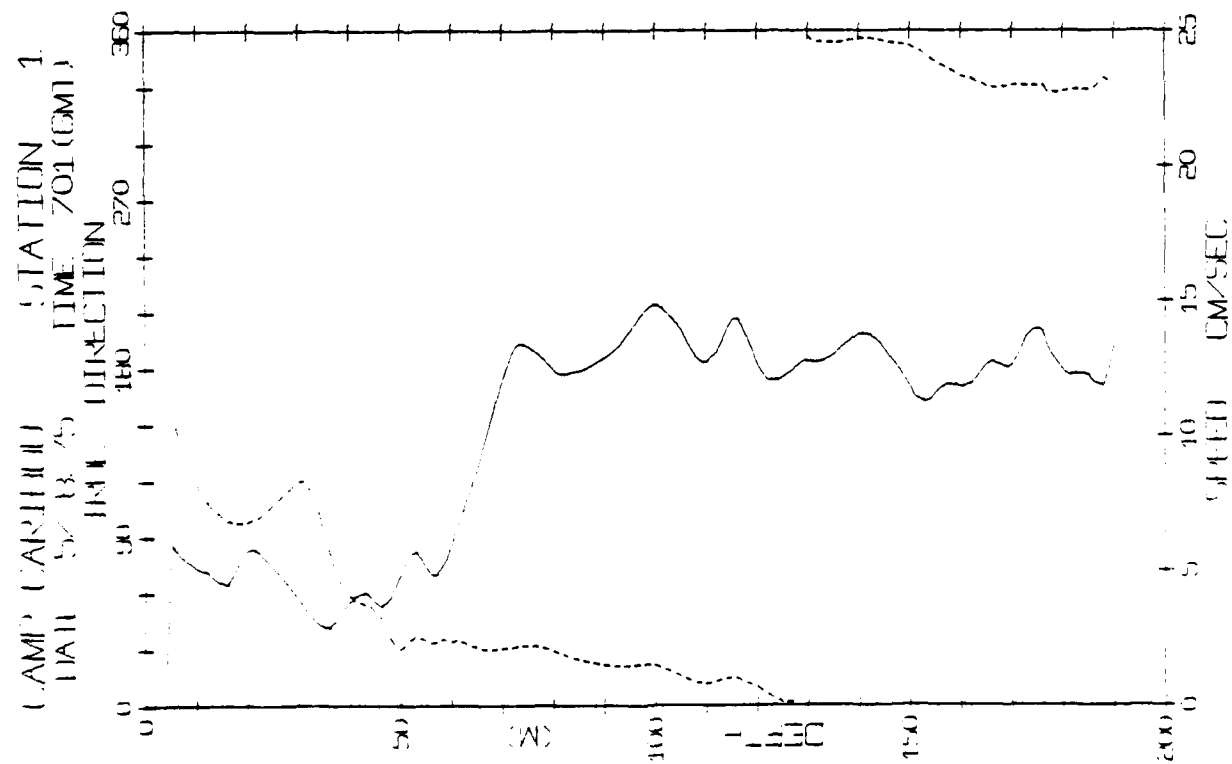
The station listing shows all stations taken at the camp along with other pertinent information. Stations that have been digitized are indicated by the word "PLOT", stations that are listed with "TSER" ("time series" or " ") were not digitized primarily due to lack of relative speeds. Parameters at the top of each page imply the following:

CAMP	Name of manned camp
STAT	PCM station
CODE	Processing code, see above
DY	day
MON	month
YR	year
TIME	GMT time of station
AJXDAY	AIDJEX day (decimal) of station, see Appendix 3
DEPTH	maximum depth (meters) obtained at station
N. VEL	north component of ice velocity (+ implies North, - implies South)
E. VEL	east component of ice velocity (+ implies East, - implies West)
LATITUDE	latitude of station in decimal degrees
LONGITUDE	longitude of station in decimal degrees (- implies West longitude)
LT. ERR	error of latitude position in meters
LG. ERR	error of longitude position in meters
VN. ERR	error in north component of ice velocity in cm/sec
VE. ERR	error in east component of ice velocity in cm/sec

CAMP	STAT	CODE	BY	MO	DAY	TIME	AJDAY	DEPTH	A.VEL	F.VEL	LATITUDE	LONGITUDE	LAT.FPM	ENG.FPM	RV.FPM	EV.FPM
CARIBOU	1	PLUT	5	AUG	75	701	217.2924	190	2.7	11.7	74.59102	-144.10948	2.4	1.9	0.1	0.2
CARIBOU	2	PLUT	8	AUG	75	649	220.2840	130	1.4	17.4	74.50076	-143.73836	4.7	1.4	0.1	0.2
CARIBOU	3	PLUT	9	AUG	75	2110	221.9792	130	3.7	38.7	74.50574	-143.49080	4.0	0.1	0.1	0.2
CARIBOU	4	TSER	9	AUG	75	1326	221.9792	194	-5.9	40.9	74.49541	-143.27899	0.1	0.1	0.1	0.2
CARIBOU	5	PLUT	10	AUG	75	2244	222.0424	190	-6.9	13.4	74.40854	-142.86867	2.1	3.5	0.1	0.2
CARIBOU	6	TSER	10	AUG	75	1101	222.0424	190	-9.9	13.4	74.40854	-142.86867	1.4	2.4	0.1	0.2
CARIBOU	7	PLUT	11	AUG	75	2309	222.0424	190	-7.4	10.4	74.27118	-142.55647	1.8	0.0	0.1	0.2
CARIBOU	8	PLUT	11	AUG	75	2304	222.0424	190	-5.3	12.4	74.26928	-142.55647	1.0	0.0	0.1	0.2
CARIBOU	9	PLUT	11	AUG	75	2335	222.9826	190	-12.5	14.4	74.17989	-142.24183	1.1	1.1	0.1	0.2
CARIBOU	10	PLUT	11	AUG	75	2335	222.9826	190	-12.5	14.4	74.17989	-142.24183	1.1	1.1	0.1	0.2
CARIBOU	11	PLUT	16	AUG	75	2241	222.9826	195	-3.1	12.4	74.17989	-141.55255	2.0	0.0	0.1	0.2
CARIBOU	12	PLUT	16	AUG	75	2241	222.9826	195	-3.1	12.4	74.17989	-141.55255	2.0	0.0	0.1	0.2
CARIBOU	13	PLUT	17	AUG	75	2252	223.9528	195	-2.4	15.4	74.16885	-141.57451	1.9	0.0	0.1	0.2
CARIBOU	14	PLUT	17	AUG	75	2252	223.9528	195	-2.4	15.4	74.16885	-141.57451	1.9	0.0	0.1	0.2
CARIBOU	15	PLUT	19	AUG	75	2240	223.9528	195	-6.2	15.4	74.11413	-141.84198	1.0	0.0	0.1	0.2
CARIBOU	16	PLUT	20	AUG	75	2240	223.9528	195	-6.2	15.4	74.11413	-141.84198	1.0	0.0	0.1	0.2
CARIBOU	17	PLUT	22	AUG	75	2249	223.9528	195	-8.4	15.4	74.07672	-142.72084	9.3	18.6	0.5	1.0
CARIBOU	18	PLUT	23	AUG	75	2239	223.9528	195	-4.2	13.4	74.02147	-142.66418	0.7	0.0	0.1	0.2
CARIBOU	19	PLUT	24	AUG	75	2239	223.9528	195	-4.2	13.4	74.02147	-142.66418	0.7	0.0	0.1	0.2
CARIBOU	20	PLUT	26	AUG	75	2251	223.9528	195	-2.4	15.4	74.01589	-142.34926	0.0	0.0	0.1	0.2
CARIBOU	21	PLUT	26	AUG	75	2251	223.9528	195	-2.4	15.4	74.01589	-142.34926	0.0	0.0	0.1	0.2
CARIBOU	22	PLUT	27	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	23	PLUT	27	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	24	PLUT	29	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	25	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	26	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	27	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	28	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	29	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	30	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	31	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	32	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	33	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	34	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	35	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	36	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	37	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	38	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	39	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	40	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	41	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	42	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	43	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	44	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	45	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	46	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	47	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	48	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	49	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	50	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	51	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	52	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	53	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	54	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	55	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	56	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	57	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	58	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	59	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	60	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	61	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	62	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	63	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	64	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	65	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	66	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	67	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	68	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	69	PLUT	30	AUG	75	2255	224.9549	195	-2.4	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2
CARIBOU	70	TSER	30	AUG	75	2255	224.9549	195	-10.9	15.4	73.96153	-141.76547	2.3	7.7	0.1	0.2

CAMP	STAT	CODE	DT	TIME	ADJ DAY	DEPTH	N. VEL	E. VEL	LATITUDE	LONGITUDE	LAT. ERR	LONG. ERR	NV. ERR	EV. ERR
CAMPB00	141	PILOT	21 DEC 75	2022	157.8445	200	-0.5	0.7	71.04076	-141.24829	0.9	1.7	0.1	0.1
CAMPB00	142	PILOT	24 DEC 75	647	158.2827	198	-2.5	1.7	71.03682	-141.23137	0.9	1.7	0.1	0.1
CAMPB00	143	PILOT	24 DEC 75	1941	158.5200		-1.5	-0.5	71.02897	-141.21437	1.0	2.0	0.0	0.0
CAMPB00	144	PILOT	27 DEC 75	723	161.3076		1.2	-0.3	73.02528	-141.21106	0.2	1.0	0.0	0.0
CAMPB00	145	PILOT	27 DEC 75	2014	161.3076		1.2	-0.3	73.03762	-141.30641	1.1	2.2	0.0	0.0
CAMPB00	146	PILOT	28 DEC 75	705	162.2451		4.0	-6.1	73.04658	-141.30542	0.2	1.1	0.0	0.0
CAMPB00	147	PILOT	28 DEC 75	256	163.2472		-0.5	0.7	73.06260	-141.34005	0.5	1.1	0.0	0.0
CAMPB00	148	PILOT	29 DEC 75	2024	163.2472		-0.5	0.7	73.04884	-141.34551	0.6	1.1	0.0	0.0
CAMPB00	149	PILOT	30 DEC 75	616	164.2611		-1.9	1.9	73.04270	-141.34604	0.3	1.1	0.0	0.0
CAMPB00	150	PILOT	30 DEC 75	1940	164.2611		-0.4	1.9	73.03670	-141.32425	0.6	1.1	0.0	0.0
CAMPB00	151	PILOT	31 DEC 75	2333	165.2813		0.3	-1.0	73.03693	-141.31532	1.1	2.2	0.0	0.0
CAMPB00	152	PILOT	1 JAN 76	658	165.2813		0.3	-1.0	73.06681	-141.35106	1.9	3.3	0.0	0.0
CAMPB00	153	PILOT	1 JAN 76	714	167.2014		1.3	-0.9	73.10707	-141.34348	0.1	0.0	0.0	0.0
CAMPB00	154	PILOT	2 JAN 76	2045	167.2014		1.3	-0.9	73.12827	-141.34097	0.1	0.0	0.0	0.0
CAMPB00	155	PILOT	3 JAN 76	626	168.2681		1.3	-0.9	73.14761	-141.32163	0.1	0.0	0.0	0.0
CAMPB00	156	PILOT	3 JAN 76	2143	168.2681		1.3	-0.9	73.19987	-141.33435	1.0	1.9	0.0	0.0
CAMPB00	157	PILOT	4 JAN 76	634	169.2736		15.2	-8.3	73.24603	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	158	PILOT	4 JAN 76	1216	169.2736		15.2	-8.3	73.27660	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	159	PILOT	4 JAN 76	2029	169.2736		15.2	-8.3	73.32492	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	160	PILOT	5 JAN 76	824	169.2736		15.2	-8.3	73.36376	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	161	PILOT	5 JAN 76	1926	170.2500		15.2	-8.3	73.37734	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	162	PILOT	6 JAN 76	701	171.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	163	PILOT	6 JAN 76	2039	171.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	164	PILOT	7 JAN 76	115	172.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	165	PILOT	7 JAN 76	2017	172.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	166	PILOT	9 JAN 76	115	172.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	167	PILOT	9 JAN 76	2017	172.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	168	PILOT	9 JAN 76	653	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	169	PILOT	10 JAN 76	243	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	170	PILOT	10 JAN 76	2208	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	171	PILOT	11 JAN 76	732	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	172	PILOT	11 JAN 76	15	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	173	PILOT	11 JAN 76	154	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	174	PILOT	11 JAN 76	1942	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	175	PILOT	11 JAN 76	1924	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	176	PILOT	11 JAN 76	1755	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	177	PILOT	11 JAN 76	911	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	178	PILOT	11 JAN 76	2026	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	179	PILOT	11 JAN 76	215	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	180	PILOT	11 JAN 76	2225	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	181	PILOT	11 JAN 76	819	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	182	PILOT	11 JAN 76	2007	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	183	PILOT	11 JAN 76	841	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	184	PILOT	11 JAN 76	310	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	185	PILOT	11 JAN 76	532	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	186	PILOT	11 JAN 76	1050	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	187	PILOT	11 JAN 76	2140	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	188	PILOT	11 JAN 76	2448	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	189	PILOT	11 JAN 76	1126	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	190	PILOT	11 JAN 76	1743	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	191	PILOT	11 JAN 76	2245	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	192	PILOT	11 JAN 76	518	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	193	PILOT	11 JAN 76	1030	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	194	PILOT	11 JAN 76	1636	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	195	PILOT	11 JAN 76	2301	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	196	PILOT	11 JAN 76	444	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	197	PILOT	11 JAN 76	1040	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	198	PILOT	11 JAN 76	1953	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	199	PILOT	11 JAN 76	2241	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	200	PILOT	11 JAN 76	451	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	201	PILOT	11 JAN 76	1042	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	202	PILOT	11 JAN 76	1648	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	203	PILOT	11 JAN 76	2105	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	204	PILOT	11 JAN 76	449	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	205	PILOT	11 JAN 76	1040	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	206	PILOT	11 JAN 76	1653	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	207	PILOT	11 JAN 76	2248	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	208	PILOT	11 JAN 76	447	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	209	PILOT	11 JAN 76	1058	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0
CAMPB00	210	PILOT	11 JAN 76	1658	173.2604		15.2	-8.3	73.38154	-141.30964	0.9	1.9	0.0	0.0

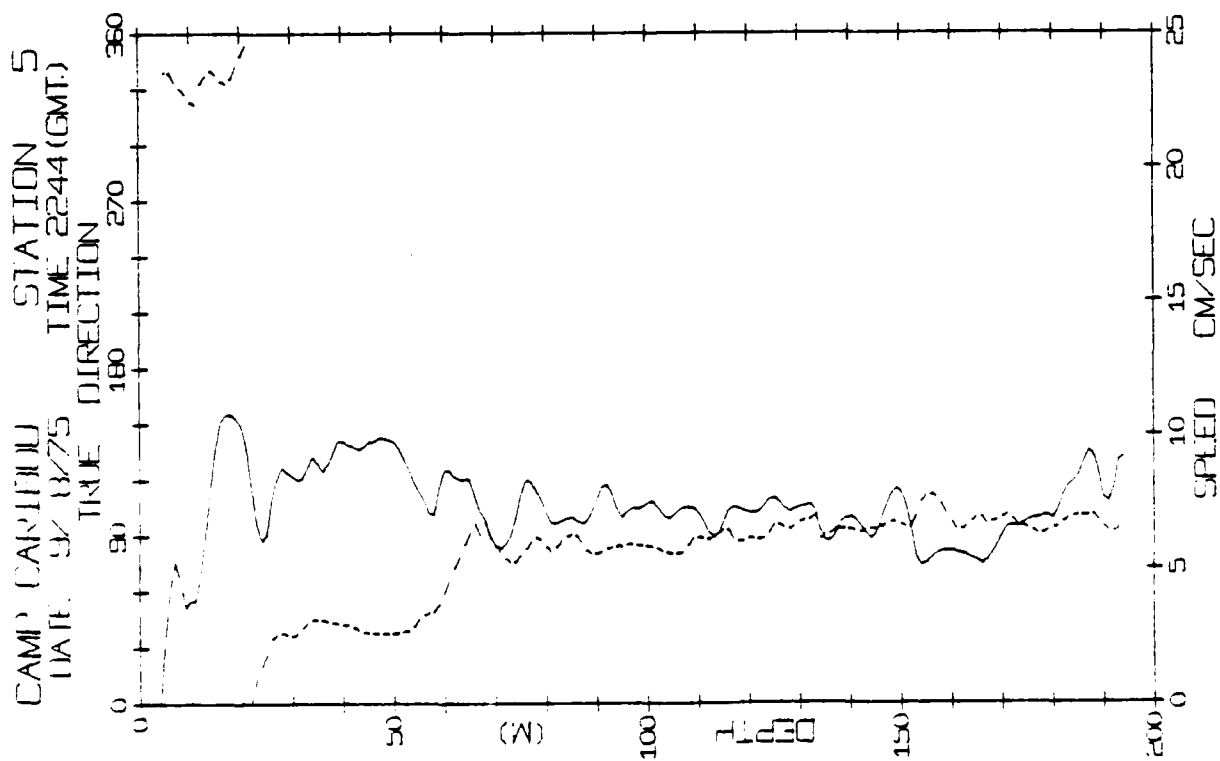
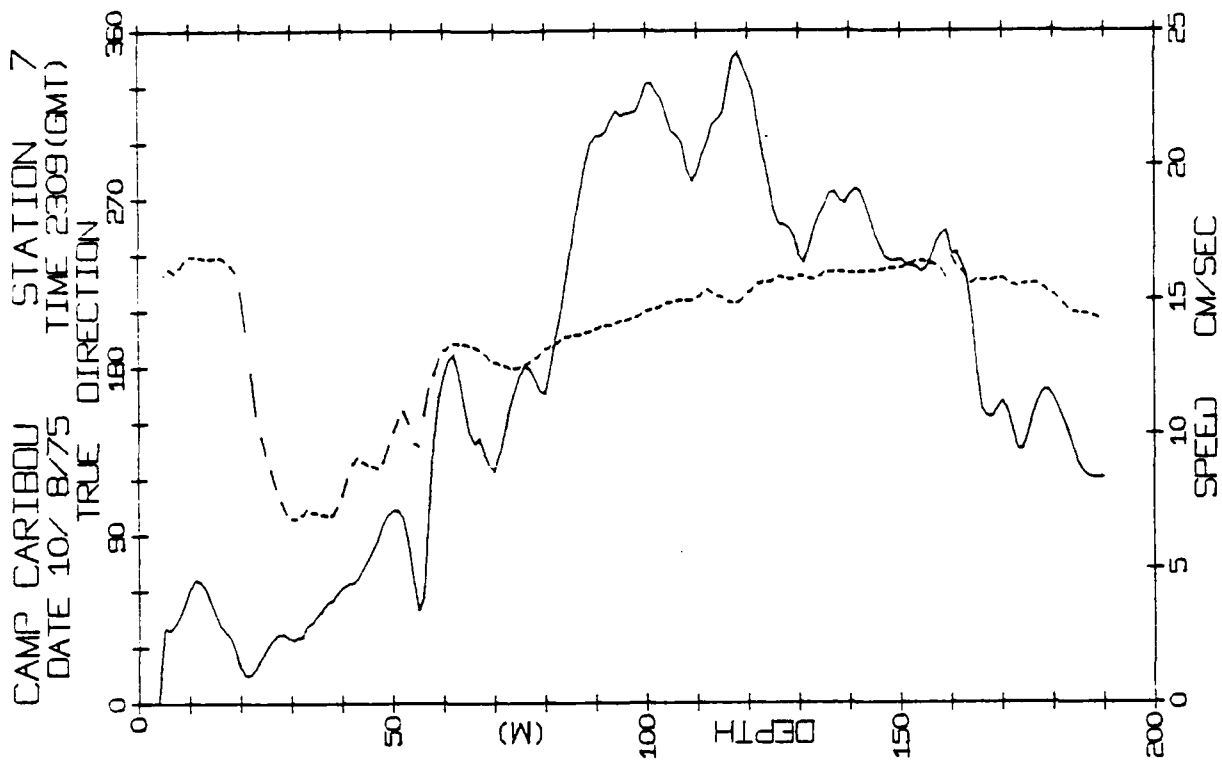
CAP	STAL	CODE	DAY	MON	YR	TIME	AJLDAY	DEPTH	N.VEL.	E.VEL.	LATITUDE	LONGITUDE	LAT.	PMR	INC.	PMR	N.VEL.	PMR
CARIBOU	211	PL01	7	FEB	76	1117	403.7202	189	-5.2	10.4	73.00497	-141.67336	73.00497	0.4	2.7	0.0	0.0	0.1
CARIBOU	212	PL01	7	FEB	76	2249	403.9500	190	-6.8	6.9	72.99217	-141.61765	72.99217	0.0	0.0	0.0	0.0	0.0
CARIBOU	213	PL01	8	FEB	76	1607	404.2549	194	-4.7	5.4	72.97945	-141.57222	72.97945	0.0	0.0	0.0	0.0	0.0
CARIBOU	214	PL01	8	FEB	76	1051	404.4521	190	-6.0	5.2	72.97049	-141.54082	72.97049	0.0	0.0	0.0	0.0	0.0
CARIBOU	215	PL01	8	FEB	76	1654	404.7042	192	-7.1	8.2	72.95972	-141.49817	72.95972	0.0	0.0	0.0	0.0	0.0
CARIBOU	216	PL01	8	FEB	76	2239	404.9438	192	-4.1	5.1	72.94940	-141.45448	72.94940	0.0	0.0	0.0	0.0	0.0
CARIBOU	217	PL01	9	FEB	76	1045	405.1493	190	-2.0	7.4	72.93968	-141.40099	72.93968	0.0	0.0	0.0	0.0	0.0
CARIBOU	218	PL01	9	FEB	76	2301	405.4079	190	-0.3	7.9	72.93117	-141.36076	72.93117	0.0	0.0	0.0	0.0	0.0
CARIBOU	219		10	FEB	76	1450	406.9590		-0.4	-2.1	72.92445	-141.32131	72.92445	0.0	0.0	0.0	0.0	0.0
CARIBOU	220		10	FEB	76	1912	406.4493		-0.2	-0.8	72.92799	-141.31963	72.92799	0.0	0.0	0.0	0.0	0.0
CARIBOU	221		10	FEB	76	2240	406.8000		-0.0	-0.9	72.92802	-141.32145	72.92802	0.0	0.0	0.0	0.0	0.0
CARIBOU	222		11	FEB	76	1043	406.9445		-0.3	-1.5	72.92809	-141.32172	72.92809	0.0	0.0	0.0	0.0	0.0
CARIBOU	223		11	FEB	76	1653	407.2042		-0.9	-0.2	72.92810	-141.32164	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	224		11	FEB	76	2244	407.4415		-0.4	-0.2	72.92805	-141.32191	72.92805	0.0	0.0	0.0	0.0	0.0
CARIBOU	225		12	FEB	76	1111	407.9472		-0.2	-0.2	72.92813	-141.32195	72.92813	0.0	0.0	0.0	0.0	0.0
CARIBOU	226		12	FEB	76	1623	408.2216		-1.4	-0.2	72.92818	-141.31724	72.92818	0.0	0.0	0.0	0.0	0.0
CARIBOU	227		12	FEB	76	2249	408.4660		-1.5	-0.2	72.92888	-141.30652	72.92888	0.0	0.0	0.0	0.0	0.0
CARIBOU	228		12	FEB	76	1105	408.9590		-0.4	-0.2	72.92810	-141.28596	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	229		13	FEB	76	1644	409.2097		-0.1	-0.3	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	230		13	FEB	76	2311	409.4614		-0.1	-0.3	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	231		13	FEB	76	1105	409.9590		-0.1	-0.3	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	232		13	FEB	76	1644	409.9590		-0.1	-0.3	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	233		13	FEB	76	2311	410.2180		-0.1	-0.3	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	234		14	FEB	76	1045	410.4493		-0.7	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	235		14	FEB	76	1644	410.9590		-0.6	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	236		14	FEB	76	2249	410.9590		-0.6	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	237		14	FEB	76	1045	411.2180		-0.7	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	238		14	FEB	76	1644	411.4493		-0.7	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	239		14	FEB	76	2249	411.9590		-0.6	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	240		16	FEB	76	1112	412.1986		-0.5	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	241		16	FEB	76	1644	412.4693		-0.4	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	242		16	FEB	76	2250	412.9513		-0.4	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	243		17	FEB	76	1056	413.2195		-0.4	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	244		17	FEB	76	1644	413.4566		-0.3	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	245		17	FEB	76	2250	413.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	246		18	FEB	76	1045	414.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	247		18	FEB	76	1644	414.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	248		18	FEB	76	2250	414.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	249		19	FEB	76	1045	415.2208		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	250		19	FEB	76	1644	415.4566		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	251		19	FEB	76	2250	415.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	252		20	FEB	76	1045	416.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	253		20	FEB	76	1644	416.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	254		20	FEB	76	2250	416.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	255		20	FEB	76	1045	417.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	256		20	FEB	76	1644	417.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	257		20	FEB	76	2250	417.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	258		21	FEB	76	1045	418.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	259		21	FEB	76	1644	418.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	260		21	FEB	76	2250	418.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	261		21	FEB	76	1045	419.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	262		21	FEB	76	1644	419.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	263		21	FEB	76	2250	419.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	264		22	FEB	76	1045	420.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	265		22	FEB	76	1644	420.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	266		22	FEB	76	2250	420.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	267		23	FEB	76	1045	421.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	268		23	FEB	76	1644	421.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	269		23	FEB	76	2250	421.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	270		23	FEB	76	1045	422.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	271		23	FEB	76	1644	422.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	272		24	FEB	76	2250	422.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	273		24	FEB	76	1045	423.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	274		24	FEB	76	1644	423.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	275		24	FEB	76	2250	423.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	276		25	FEB	76	1045	424.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	277		25	FEB	76	1644	424.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	278		25	FEB	76	2250	424.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	279		26	FEB	76	1045	425.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	280		26	FEB	76	1644	425.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	281		26	FEB	76	2250	425.9590		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	282		27	FEB	76	1045	426.2172		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0	0.0	0.0	0.0
CARIBOU	283		27	FEB	76	1644	426.4493		-0.2	-0.2	72.92810	-141.26895	72.92810	0.0	0.0			



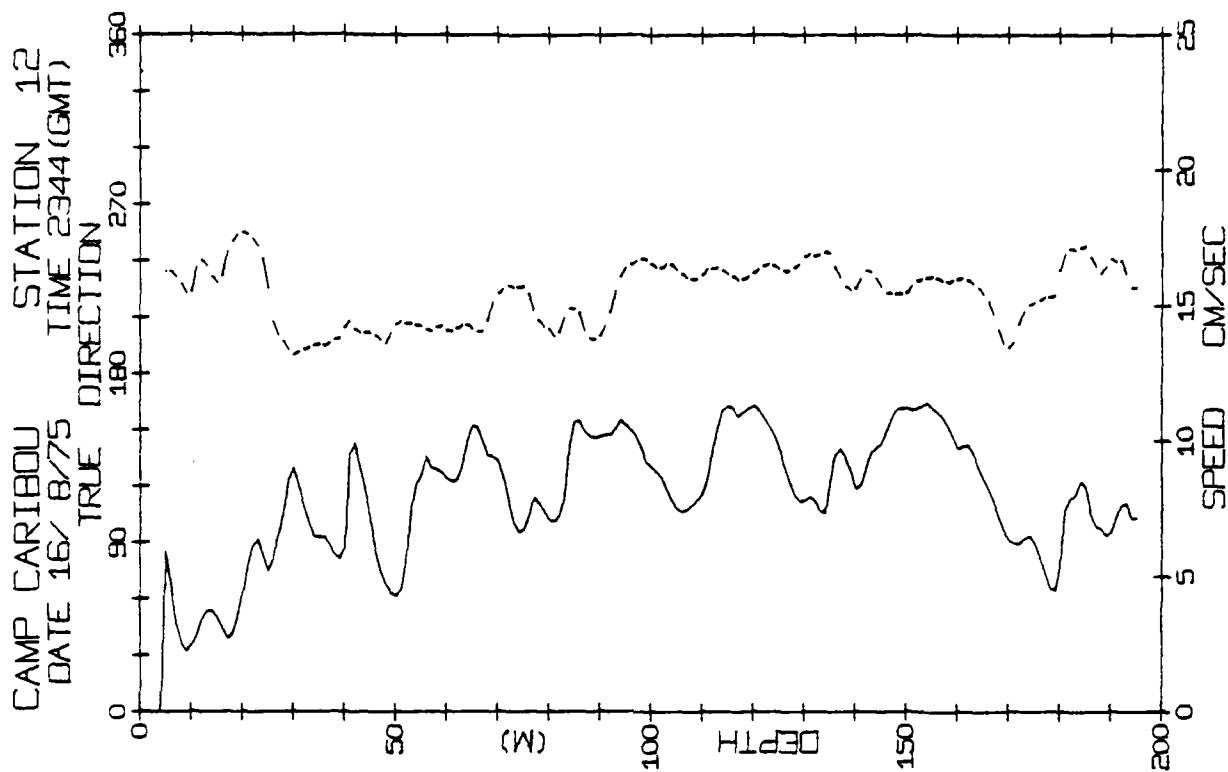
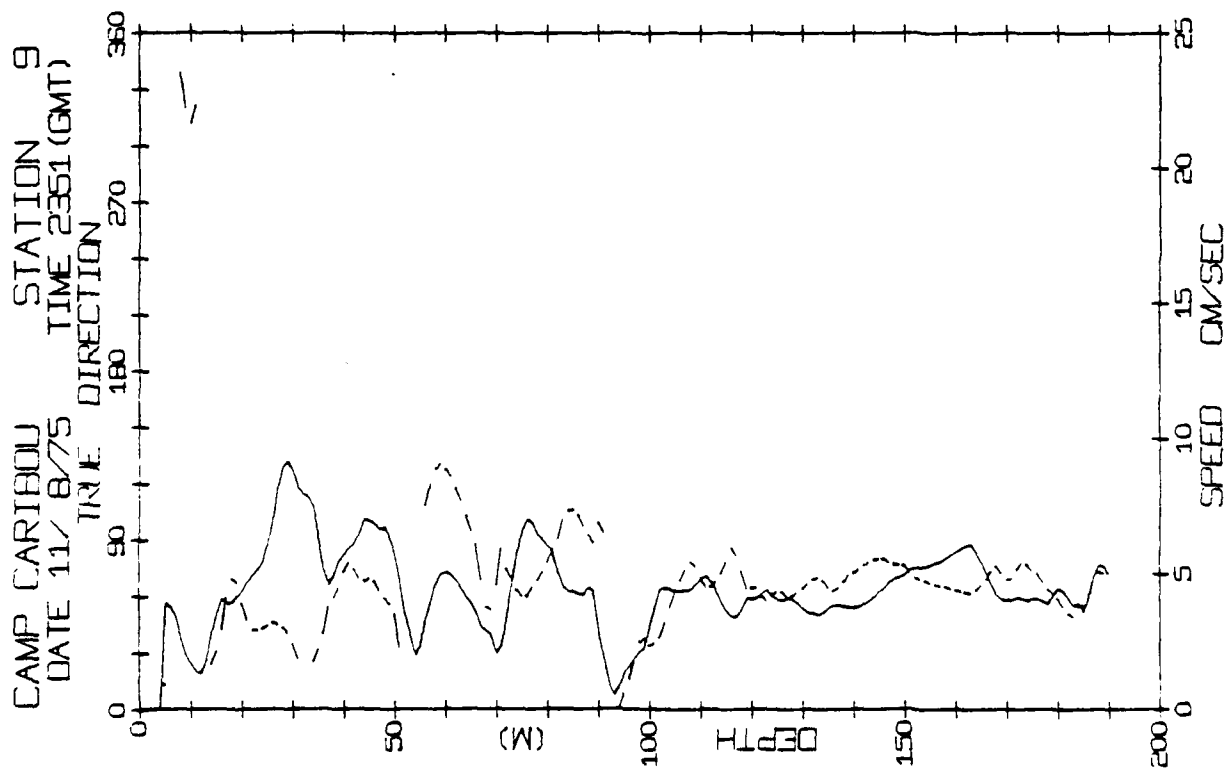
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3	0.0	999.9	136	13.1	355.5	103	14.9	115.4	103	20.3	20.3	103	20.3	20.3
4	0.0	999.9	137	13.2	355.8	104	15.0	115.7	104	20.4	20.4	104	20.4	20.4
5	0.0	999.9	138	13.3	356.1	105	15.1	116.0	105	20.5	20.5	105	20.5	20.5
6	0.0	999.9	139	13.4	356.4	106	15.2	116.3	106	20.6	20.6	106	20.6	20.6
7	0.0	999.9	140	13.5	356.7	107	15.3	116.6	107	20.7	20.7	107	20.7	20.7
8	0.0	999.9	141	13.6	357.0	108	15.4	116.9	108	20.8	20.8	108	20.8	20.8
9	0.0	999.9	142	13.7	357.3	109	15.5	117.2	109	20.9	20.9	109	20.9	20.9
10	0.0	999.9	143	13.8	357.6	110	15.6	117.5	110	21.0	21.0	110	21.0	21.0
11	0.0	999.9	144	13.9	357.9	111	15.7	117.8	111	21.1	21.1	111	21.1	21.1
12	0.0	999.9	145	14.0	358.2	112	15.8	118.1	112	21.2	21.2	112	21.2	21.2
13	0.0	999.9	146	14.1	358.5	113	15.9	118.4	113	21.3	21.3	113	21.3	21.3
14	0.0	999.9	147	14.2	358.8	114	16.0	118.7	114	21.4	21.4	114	21.4	21.4
15	0.0	999.9	148	14.3	359.1	115	16.1	119.0	115	21.5	21.5	115	21.5	21.5
16	0.0	999.9	149	14.4	359.4	116	16.2	119.3	116	21.6	21.6	116	21.6	21.6
17	0.0	999.9	150	14.5	359.7	117	16.3	119.6	117	21.7	21.7	117	21.7	21.7
18	0.0	999.9	151	14.6	360.0	118	16.4	119.9	118	21.8	21.8	118	21.8	21.8
19	0.0	999.9	152	14.7	360.3	119	16.5	120.2	119	21.9	21.9	119	21.9	21.9
20	0.0	999.9	153	14.8	360.6	120	16.6	120.5	120	22.0	22.0	120	22.0	22.0
21	0.0	999.9	154	14.9	360.9	121	16.7	120.8	121	22.1	22.1	121	22.1	22.1
22	0.0	999.9	155	15.0	361.2	122	16.8	121.1	122	22.2	22.2	122	22.2	22.2
23	0.0	999.9	156	15.1	361.5	123	16.9	121.4	123	22.3	22.3	123	22.3	22.3
24	0.0	999.9	157	15.2	361.8	124	17.0	121.7	124	22.4	22.4	124	22.4	22.4
25	0.0	999.9	158	15.3	362.1	125	17.1	122.0	125	22.5	22.5	125	22.5	22.5
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29	0.0	999.9	162	15.7	363.3	129	17.5	123.2	129	22.9	22.9	129	22.9	22.9
30	0.0	999.9	163	15.8	363.6	130	17.6	123.5	130	23.0	23.0	130	23.0	23.0
31	0.0	999.9	164	15.9	363.9	131	17.7	123.8	131	23.1	23.1	131	23.1	23.1
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33	0.0	999.9	166	16.1	364.5	133	17.9	124.4	133	23.3	23.3	133	23.3	23.3
34	0.0	999.9	167	16.2	364.8	134	18.0	124.7	134	23.4	23.4	134	23.4	23.4
35	0.0	999.9	168	16.3	365.1	135	18.1	125.0	135	23.5	23.5	135	23.5	23.5
36	0.0	999.9	169	16.4	365.4	136	18.2	125.3	136	23.6	23.6	136	23.6	23.6
37	0.0	999.9	170	16.5	365.7	137	18.3	125.6	137	23.7	23.7	137	23.7	23.7
38	0.0	999.9	171	16.6	366.0	138	18.4	125.9	138	23.8	23.8	138	23.8	23.8
39	0.0	999.9	172	16.7	366.3	139	18.5	126.2	139	23.9	23.9	139	23.9	23.9
40	0.0	999.9	173	16.8	366.6	140	18.6	126.5	140	24.0	24.0	140	24.0	24.0
41	0.0	999.9	174	16.9	366.9	141	18.7	126.8	141	24.1	24.1	141	24.1	24.1
42	0.0	999.9	175	17.0	367.2	142	18.8	127.1	142	24.2	24.2	142	24.2	24.2
43	0.0	999.9	176	17.1	367.5	143	18.9	127.4	143	24.3	24.3	143	24.3	24.3
44	0.0	999.9	177	17.2	367.8	144	19.0	127.7	144	24.4	24.4	144	24.4	24.4
45	0.0	999.9	178	17.3	368.1	145	19.1	128.0	145	24.5	24.5	145	24.5	24.5
46	0.0	999.9	179	17.4	368.4	146	19.2	128.3	146	24.6	24.6	146	24.6	24.6
47	0.0	999.9	180	17.5	368.7	147	19.3	128.6	147	24.7	24.7	147	24.7	24.7
48	0.0	999.9	181	17.6	369.0	148	19.4	128.9	148	24.8	24.8	148	24.8	24.8
49	0.0	999.9	182	17.7	369.3	149	19.5	129.2	149	24.9	24.9	149	24.9	24.9
50	0.0	999.9	183	17.8	369.6	150	19.6	129.5	150	25.0	25.0	150	25.0	25.0
51	0.0	999.9	184	17.9	369.9	151	19.7	129.8	151	25.1	25.1	151	25.1	25.1
52	0.0	999.9	185	18.0	370.2	152	19.8	130.1	152	25.2	25.2	152	25.2	25.2
53	0.0	999.9	186	18.1	370.5	153	19.9	130.4	153	25.3	25.3	153	25.3	25.3
54	0.0	999.9	187	18.2	370.8	154	20.0	130.7	154	25.4	25.4	154	25.4	25.4
55	0.0	999.9	188	18.3	371.1	155	20.1	131.0	155	25.5	25.5	155	25.5	25.5
56	0.0	999.9	189	18.4	371.4	156	20.2	131.3	156	25.6	25.6	156	25.6	25.6
57	0.0	999.9	190	18.5	371.7	157	20.3	131.6	157	25.7	25.7	157	25.7	25.7
58	0.0	999.9	191	18.6	372.0	158	20.4	131.9	158	25.8	25.8	158	25.8	25.8
59	0.0	999.9	192	18.7	372.3	159	20.5	132.2	159	25.9	25.9	159	25.9	25.9
60	0.0	999.9	193	18.8	372.6	160	20.6	132.5	160	26.0	26.0	160	26.0	26.0
61	0.0	999.9	194	18.9	372.9	161	20.7	132.8	161	26.1	26.1	161	26.1	26.1
62	0.0	999.9	195	19.0	373.2	162	20.8	133.1	162	26.2	26.2	162	26.2	26.2
63	0.0	999.9	196	19.1	373.5	163	20.9	133.4	163	26.3	26.3	163	26.3	26.3
64	0.0	999.9	197	19.2	373.8	164	21.0	133.7	164	26.4	26.4	164	26.4	26.4
65	0.0	999.9	198	19.3	374.1	165	21.1	134.0	165	26.5	26.5	165	26.5	26.5
66	0.0	999.9	199	19.4	374.4	166	21.2	134.3	166	26.6	26.6	166	26.6	26.6
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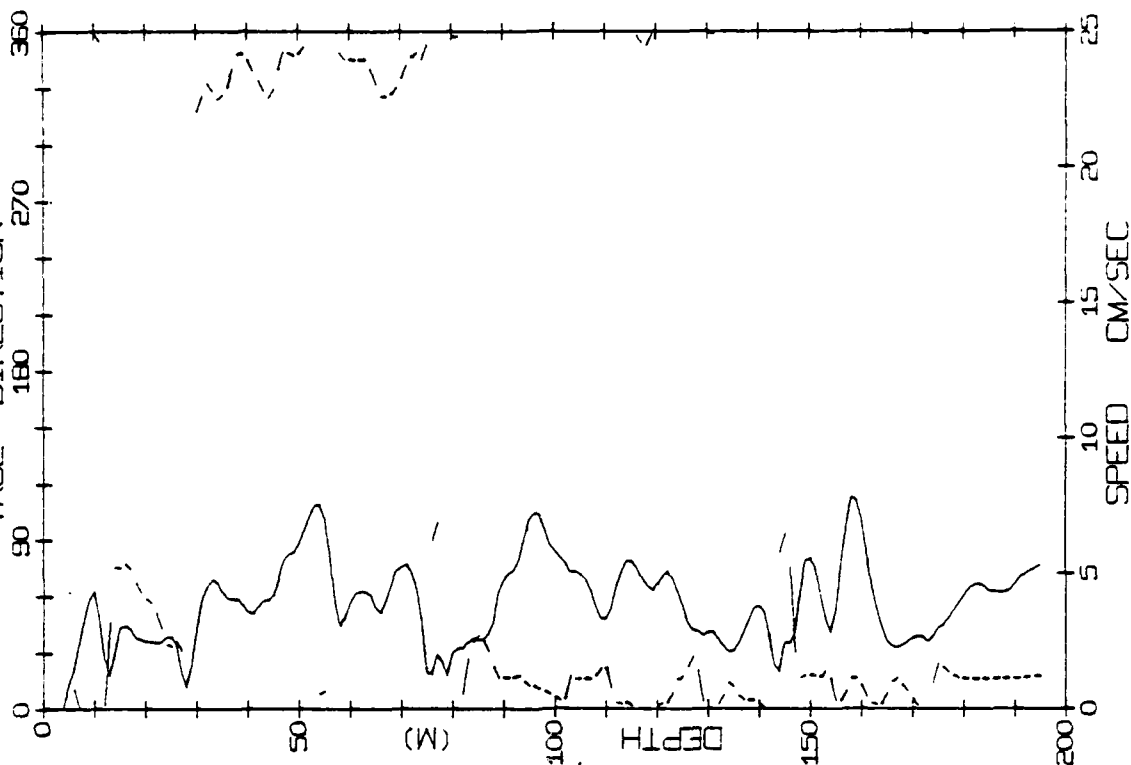


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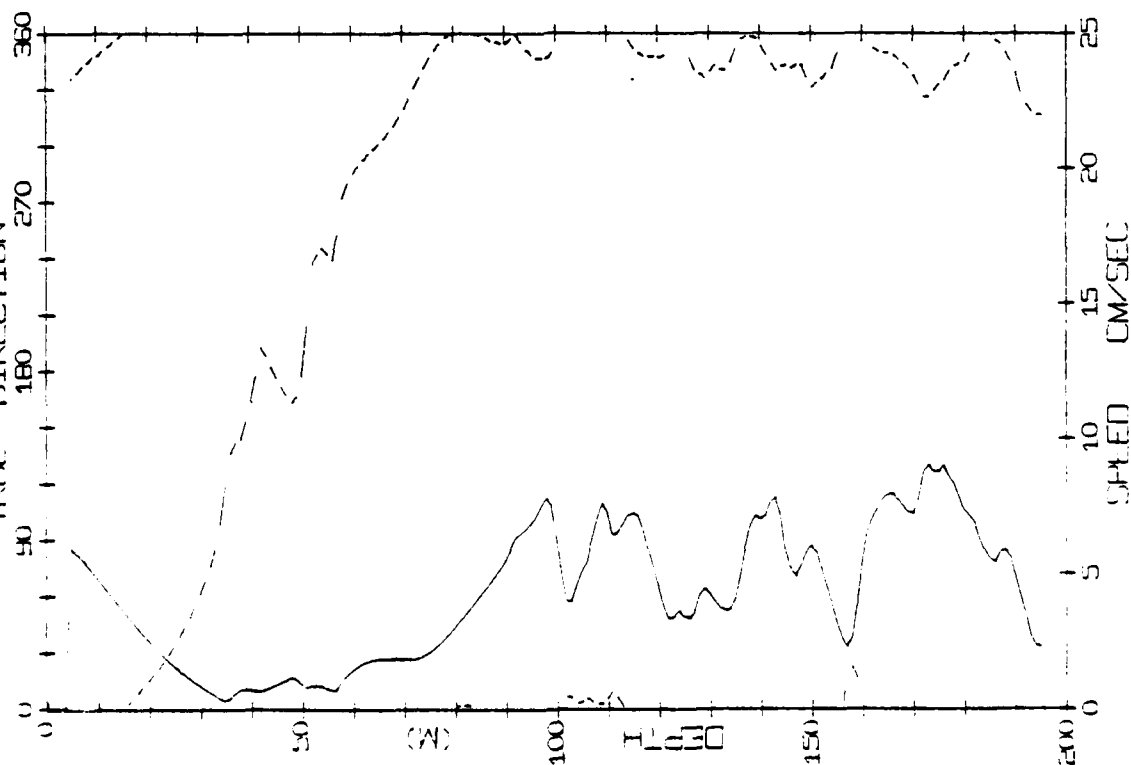
CAMP CARIBOU STATION 19
DATE 25/ 8/75 TIME 2310(GMT)

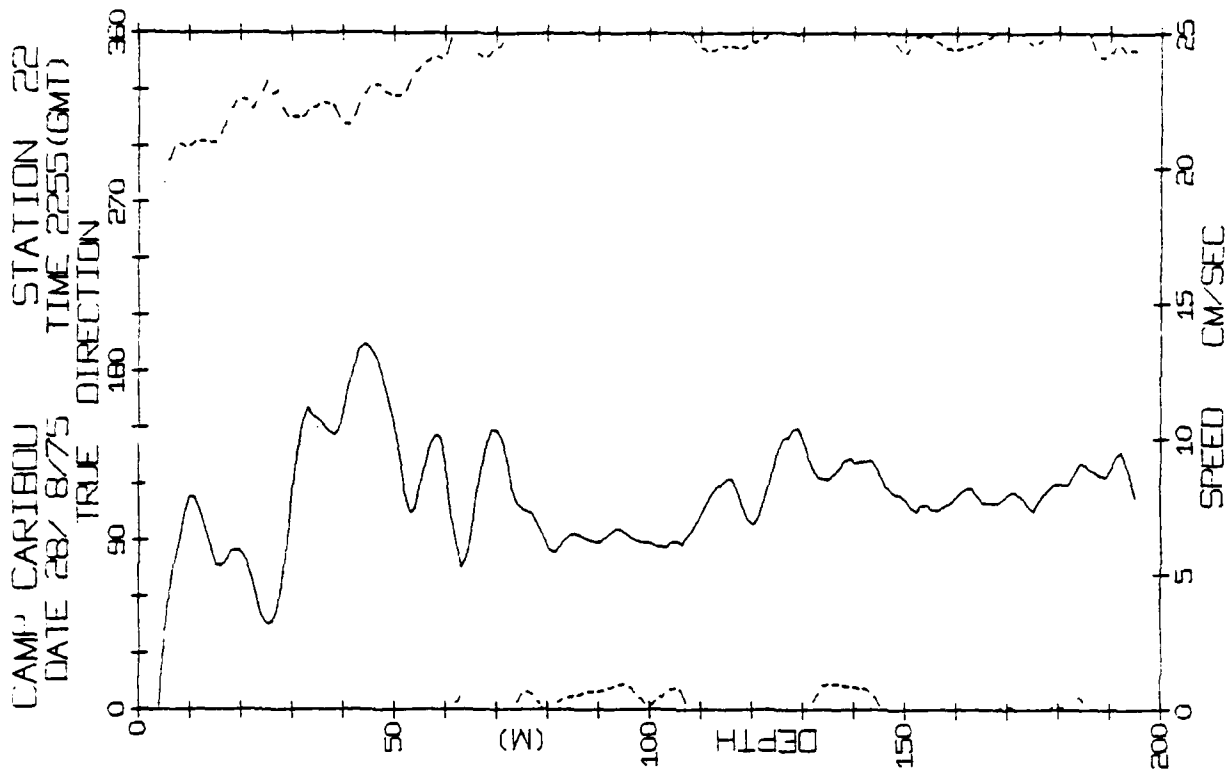
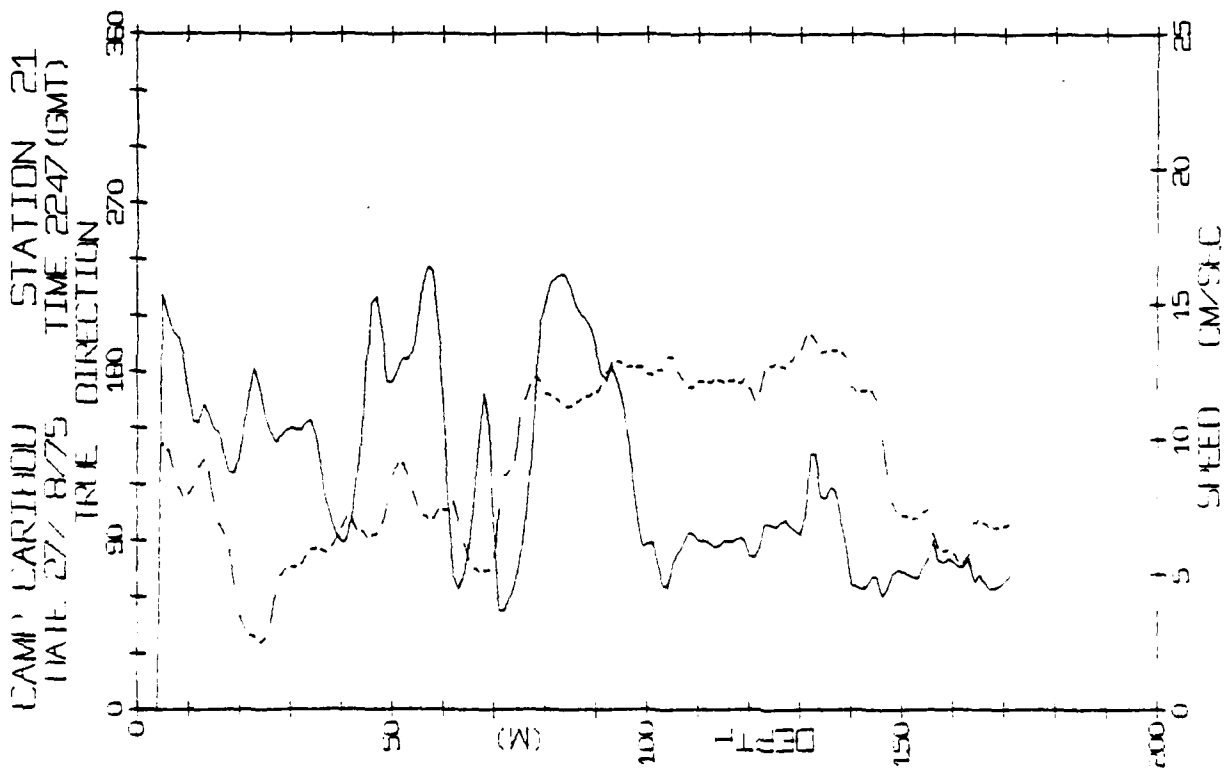
TRUE DIRECTION

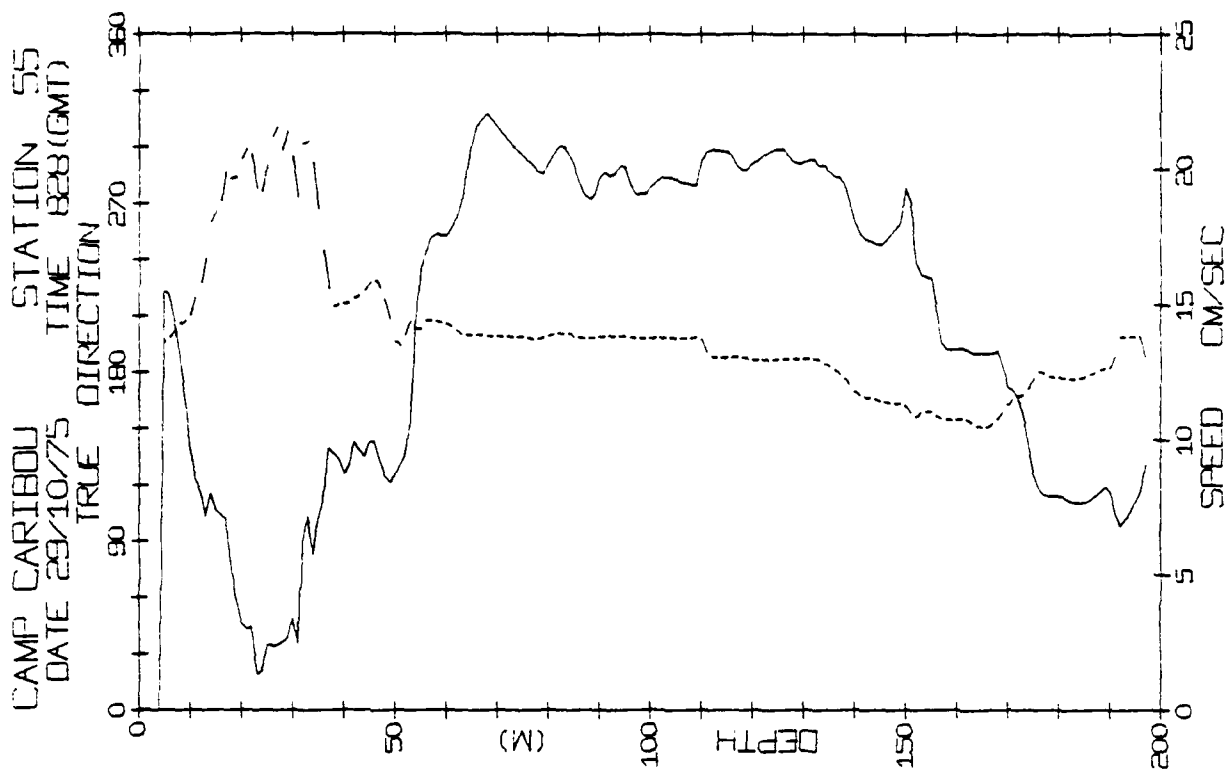
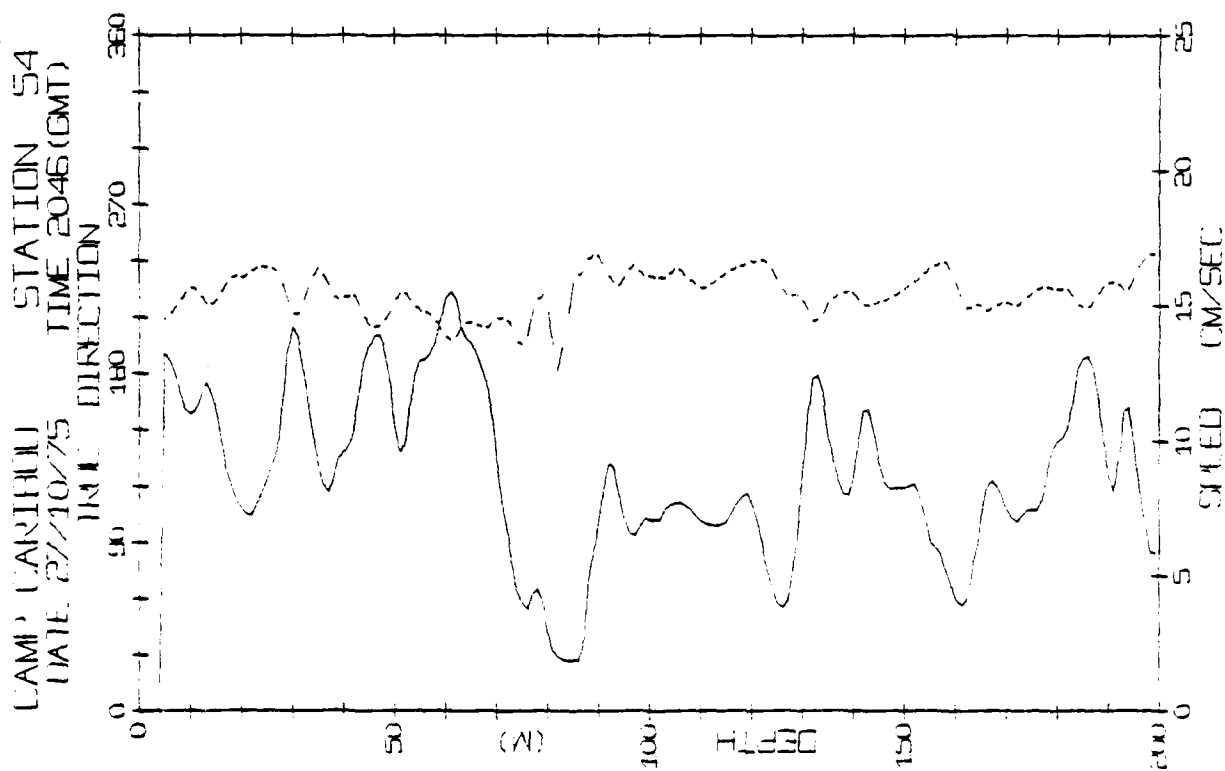


CAMP CARIBOU STATION 13
DATE 1/ 8/75 TIME 2225(GMT)

TRUE DIRECTION







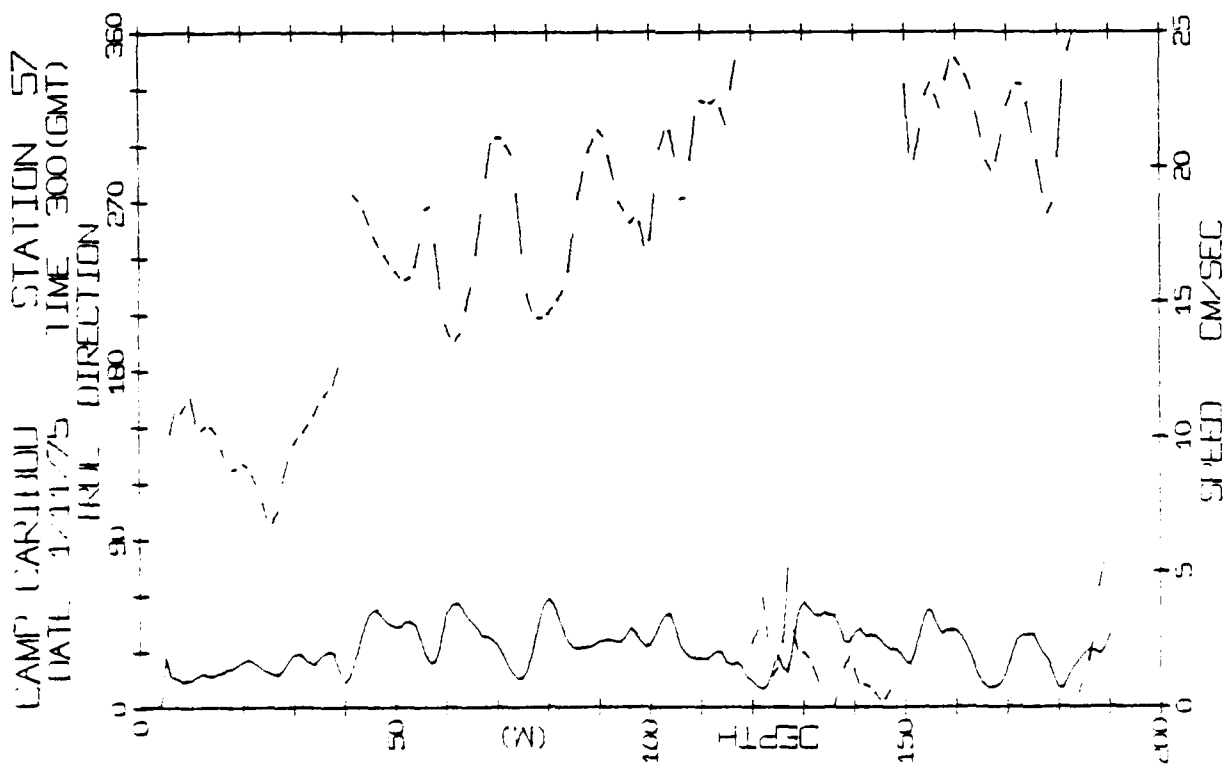
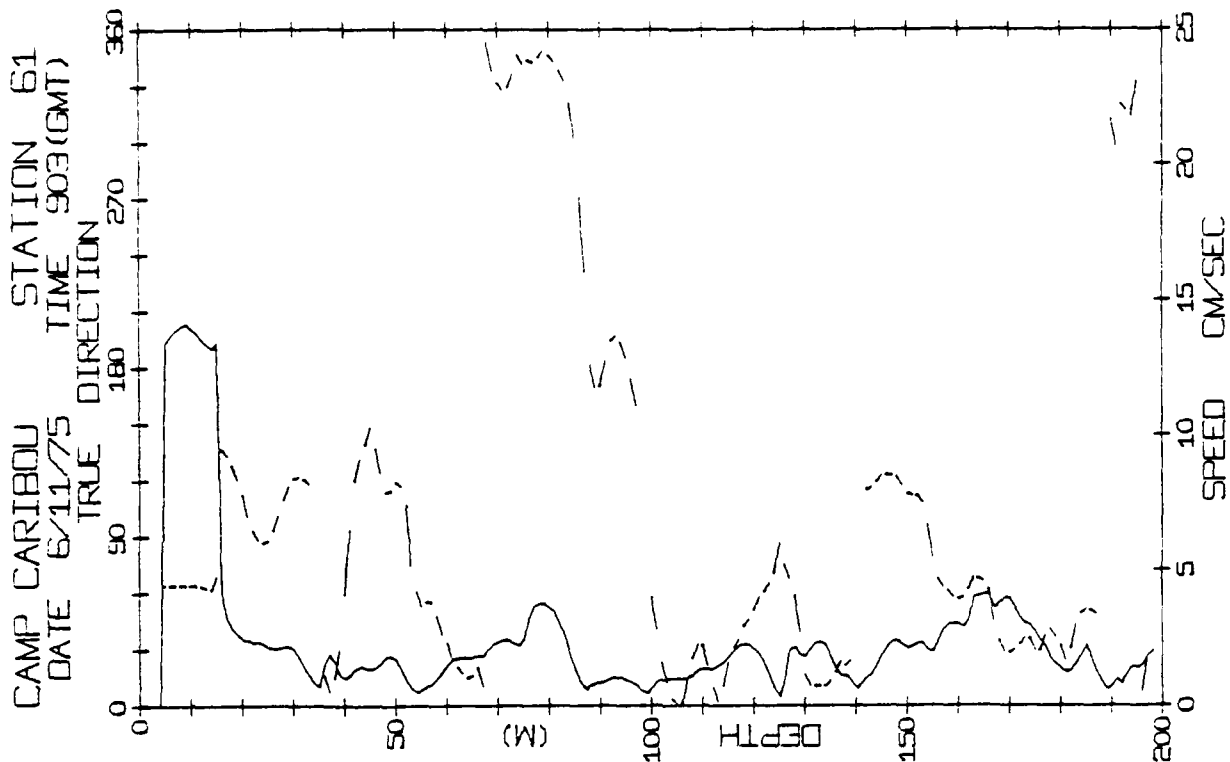

```

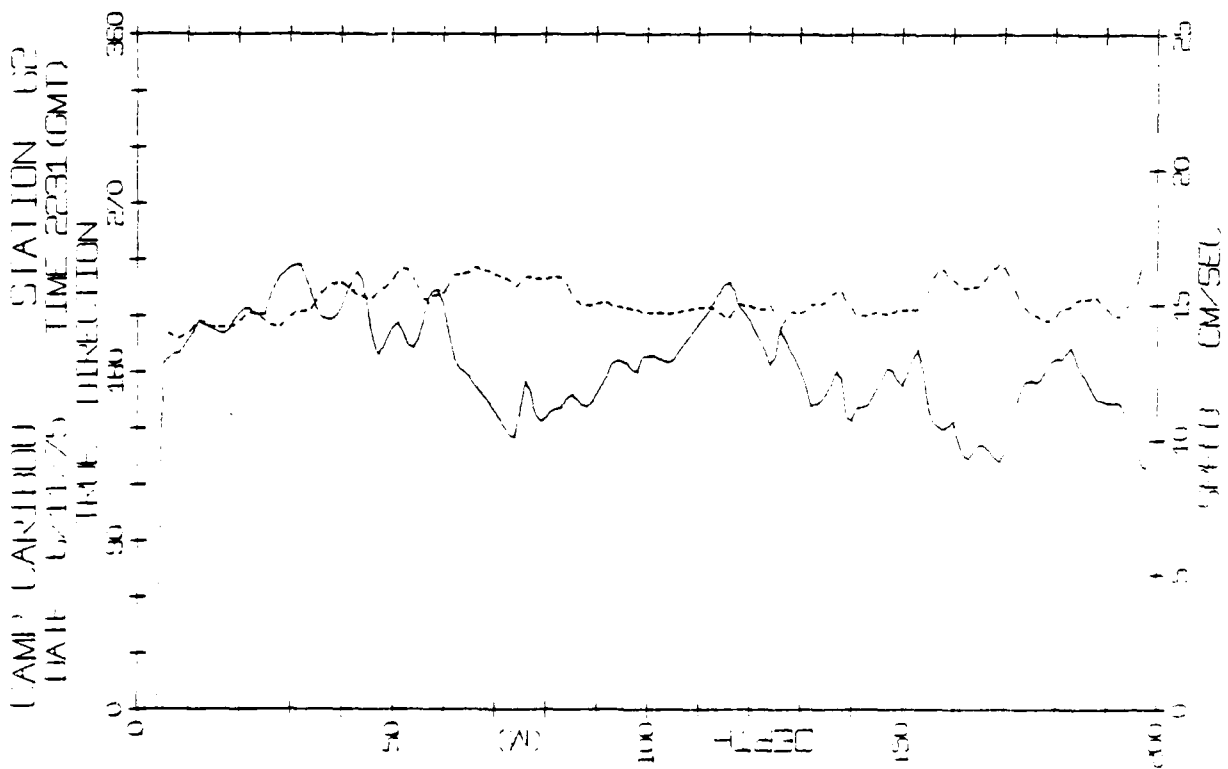
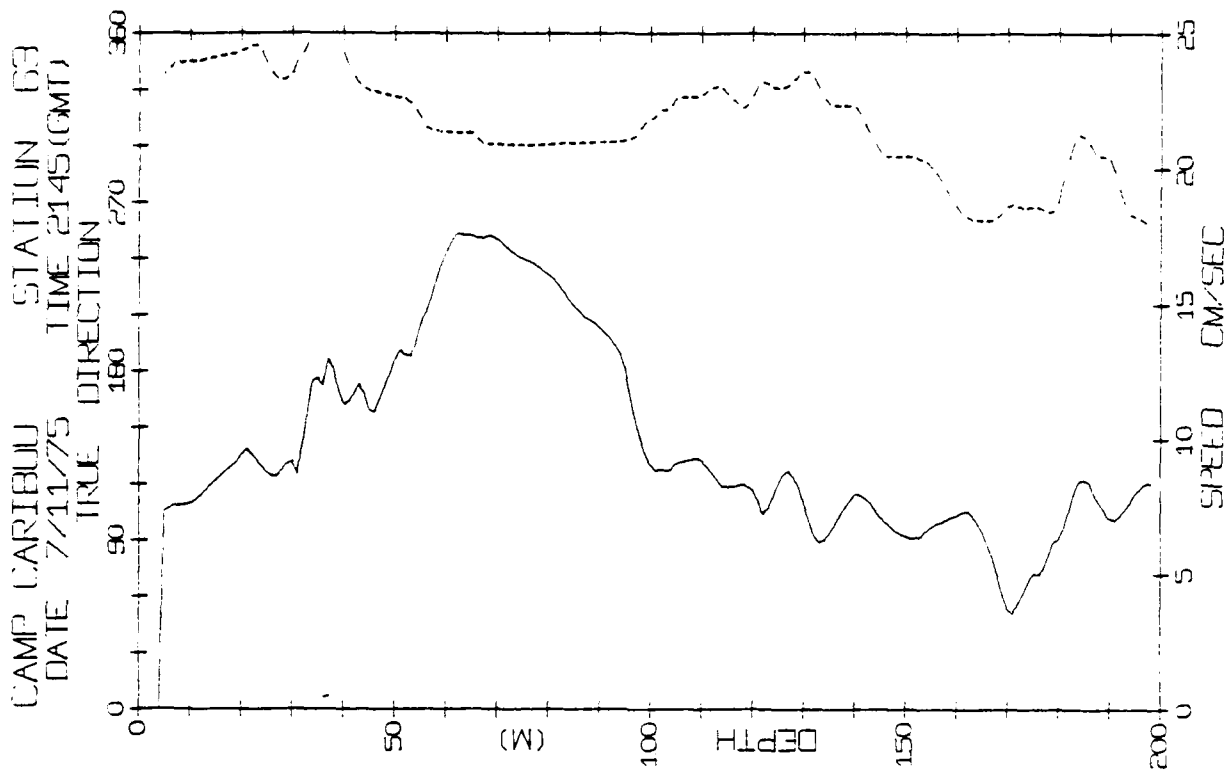
CARIBOU STATION 34 (199M.) 27/OCT/75 2046 GMT
LAT= 73.2325N LONG= 141.1502W LTR= 0. LGH= 0.
NVEL= -10.1 EVEL= 0.3 NVH= 0. EVH= 0.

```

[illegible]

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`	a	b	c	d	e	f	g
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AD-A082 212

LAMONT-DOHERTY GEOLOGICAL OBSERVATORY PALISADES N Y

F/G 8/3

ARCTIC ICE DYNAMICS JOINT EXPERIMENT (AIDJEX) 1975-1976, PHYSIC--ETC(U)

FEB 80 Y O MANLEY, K HUNKINS, W TIEMANN

N00014-76-C-0004

UNCLASSIFIED

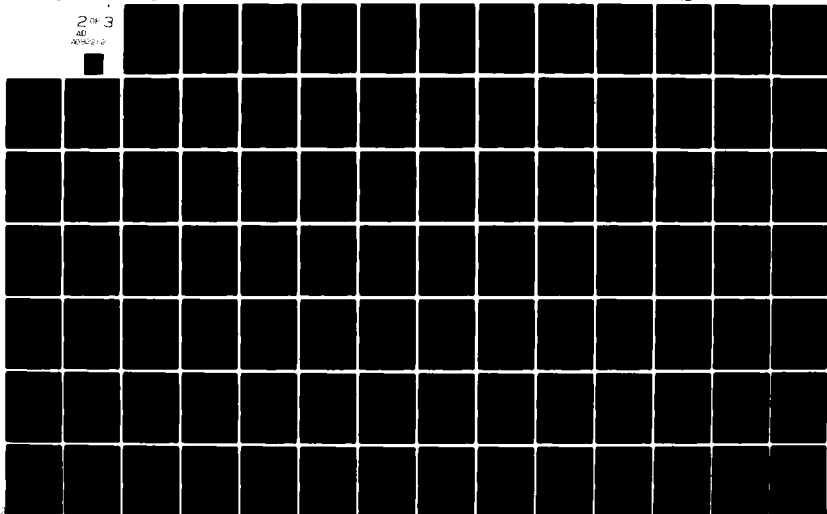
LOGO-CU-4-80-VOL-1

NL

2 OF 3

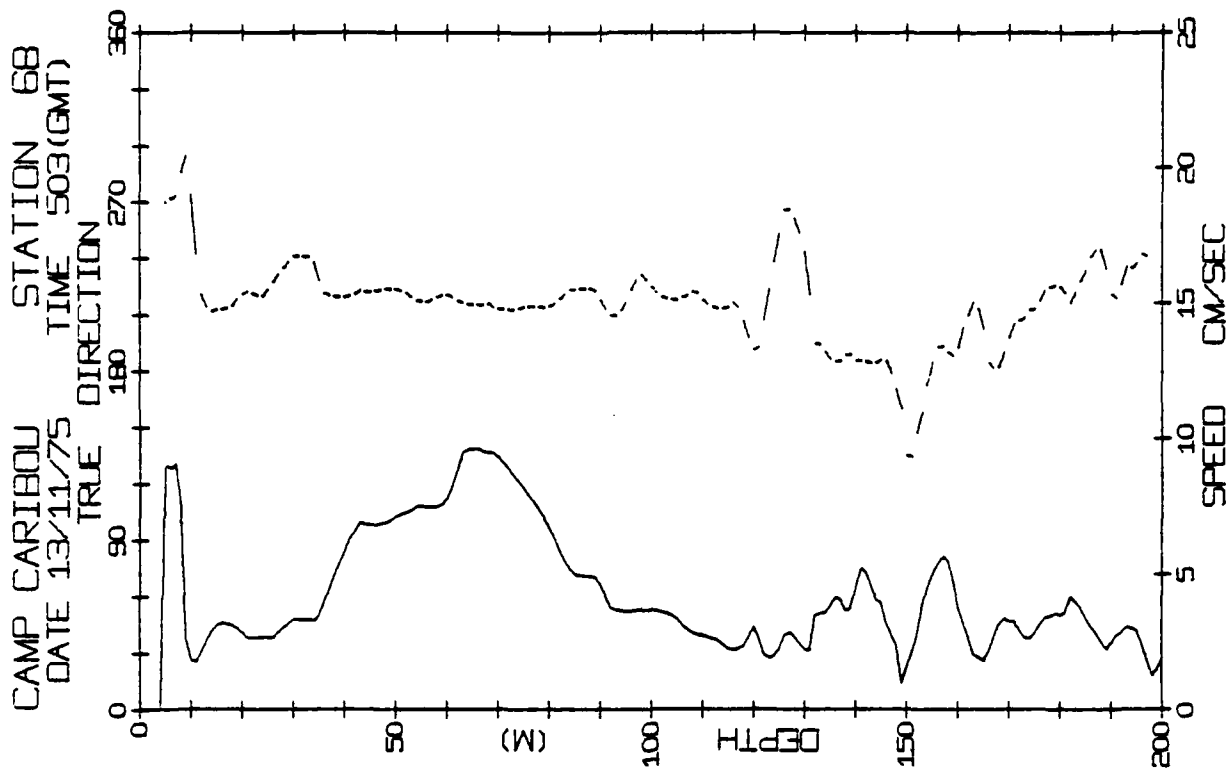
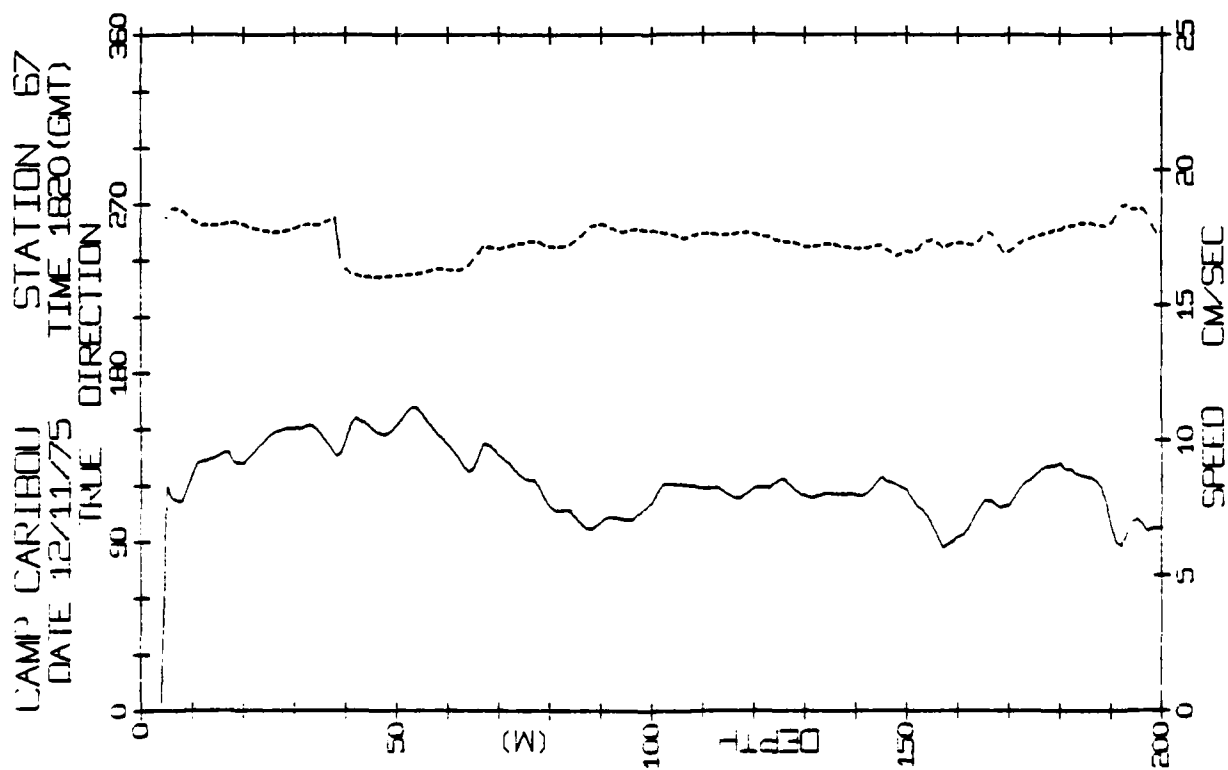
AD

AD-A082 212



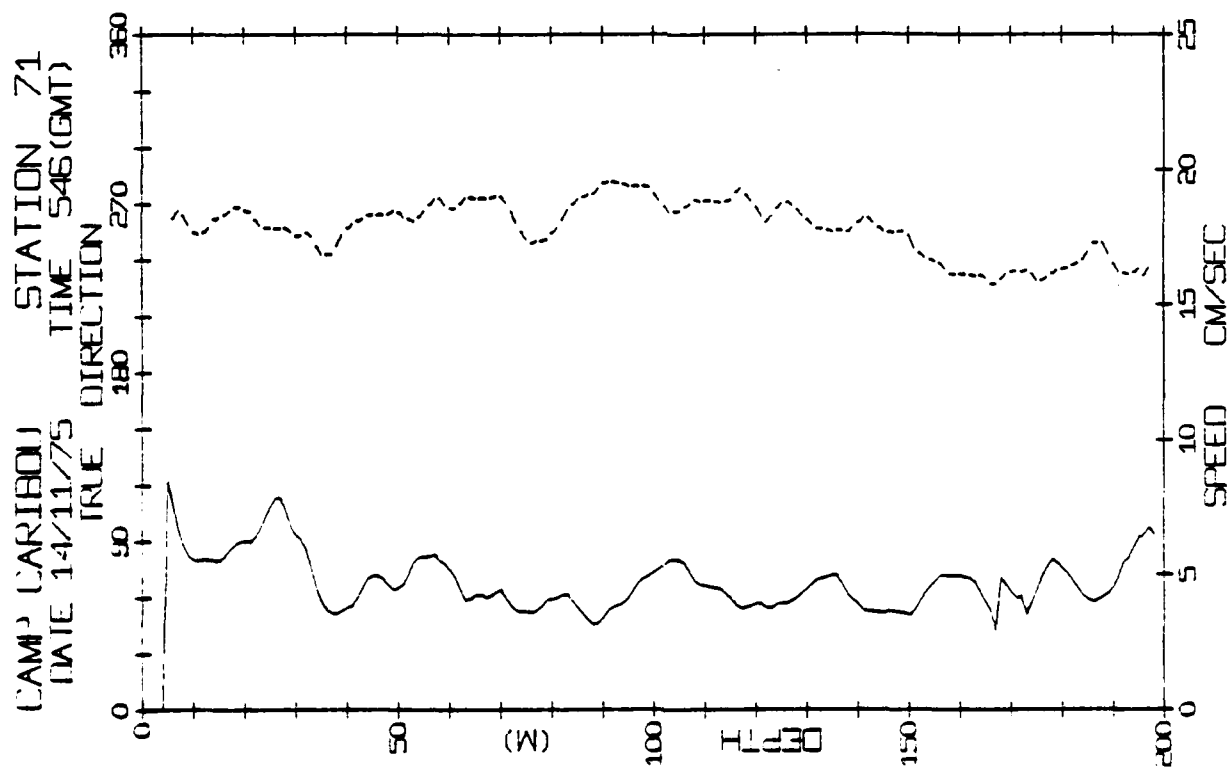
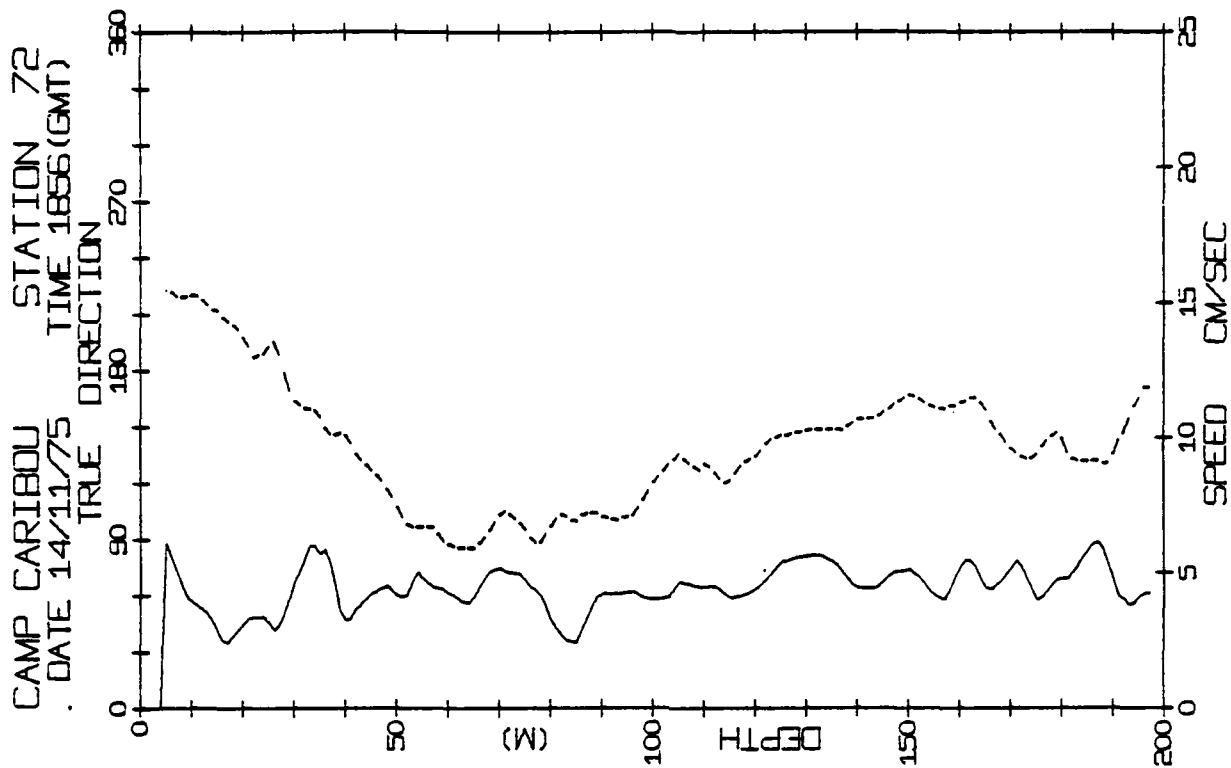
CARIBOU STATION 02
LAT 72.8623N LONG 146.02E
ELEV -6.1 FIVE

89



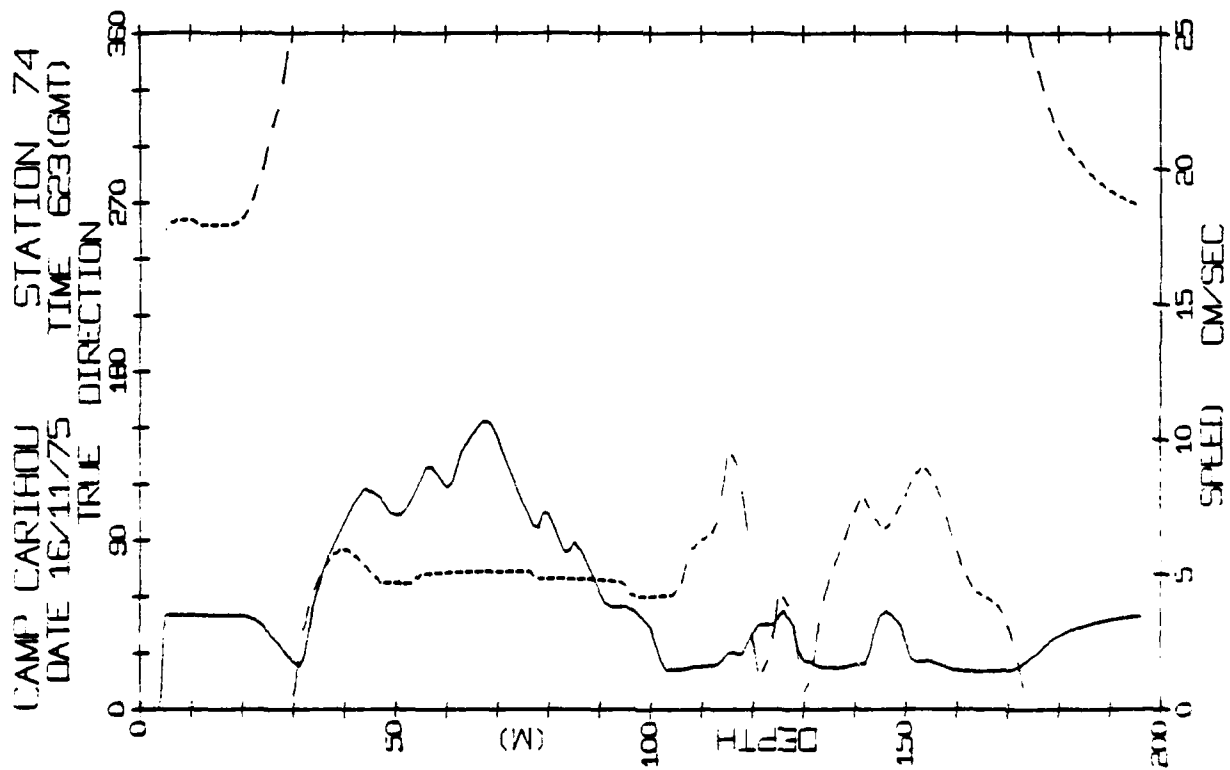
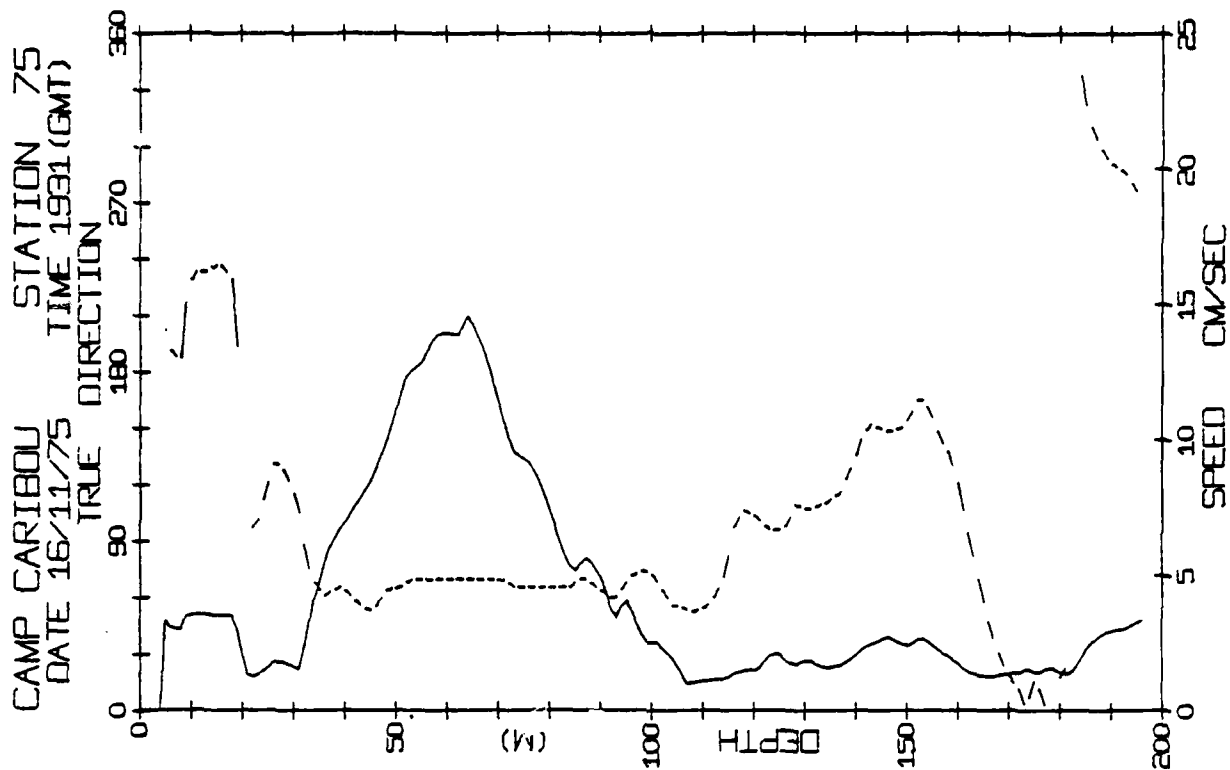
CALIMAU STATION 67 (200M.) 12/NOV/75 1820 GMT
 LAT= 72.8630N LONG= 140.8665W LTIME= 1. LGEME= 1.
 NVELO= -2.1 EVEL= -12.6 NVAL= 0. EVER= 0.

[illegible][illegible]



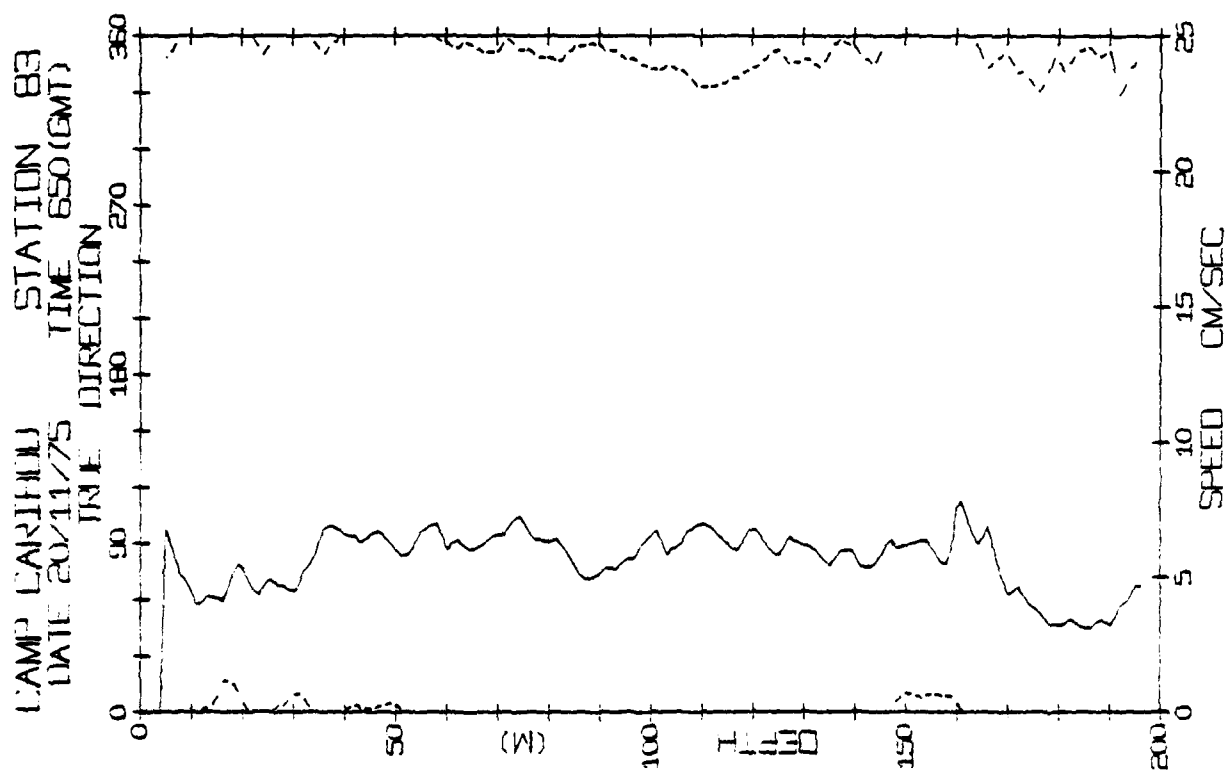
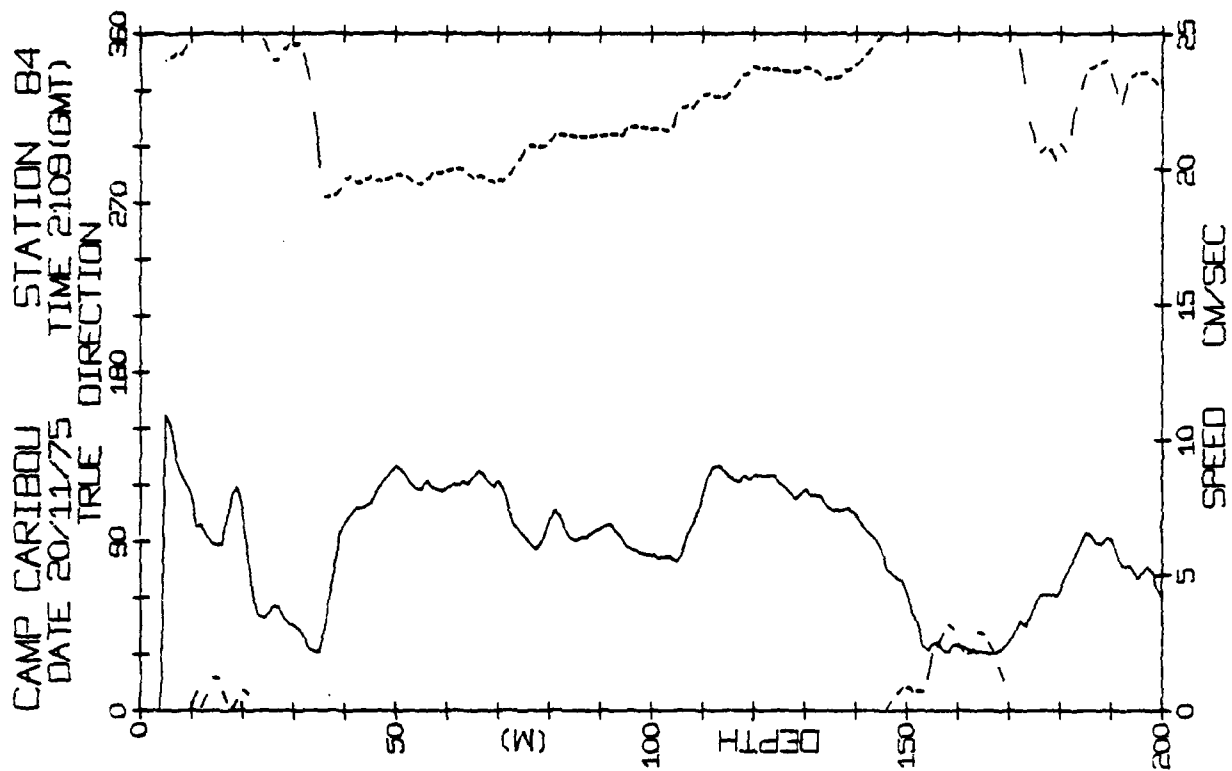
CARIBOU STATION '71 (198M.) 14/NOV/75 546 GMT
 LAT= 72.7844N LONG= 141.2862W LTER= 1. I.GER= 2.
 MINVEL= -11.2 EVEL= -10.6 NVER= 0. EVER= 0.

[illegible][illegible]

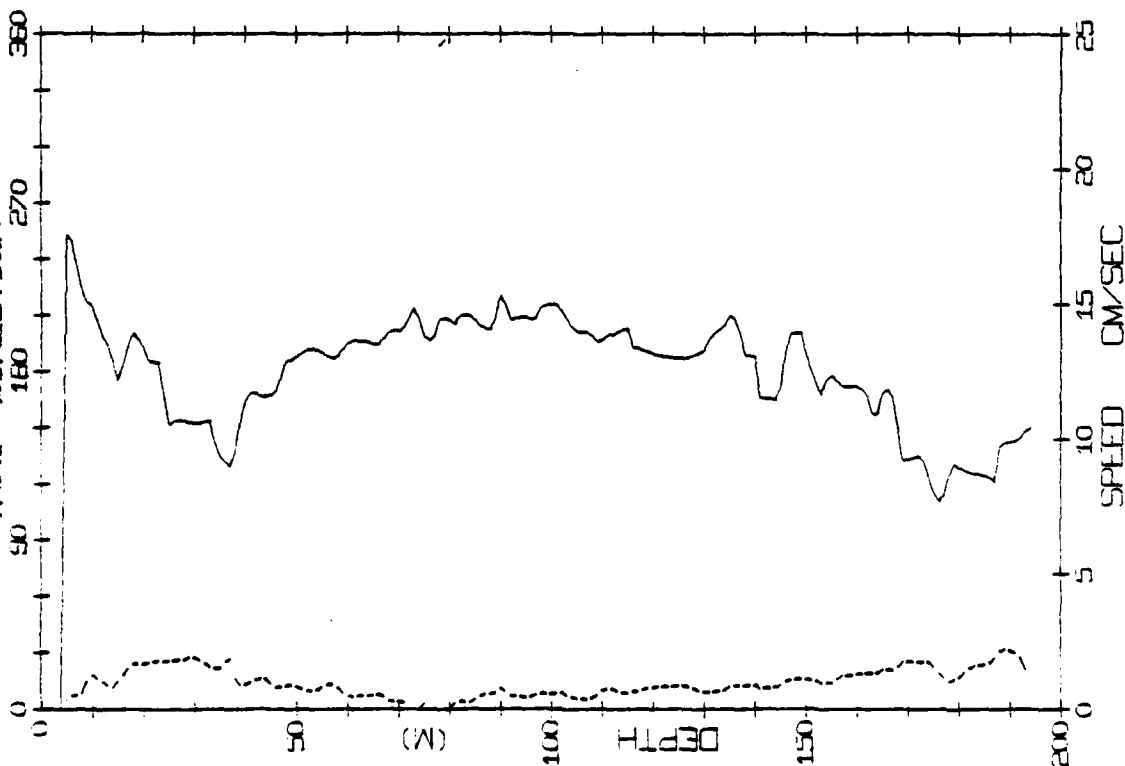


CAMINO STATION 74 (196N.) 16/NOV/75 623 GMT
 LAT= 72.7104N LONG= 141.3622W LTIME= 0. LGHE= 0.
 NIVEL= -0.5 EVEL= -0.9 NVAL= 0. EVEN= 0.

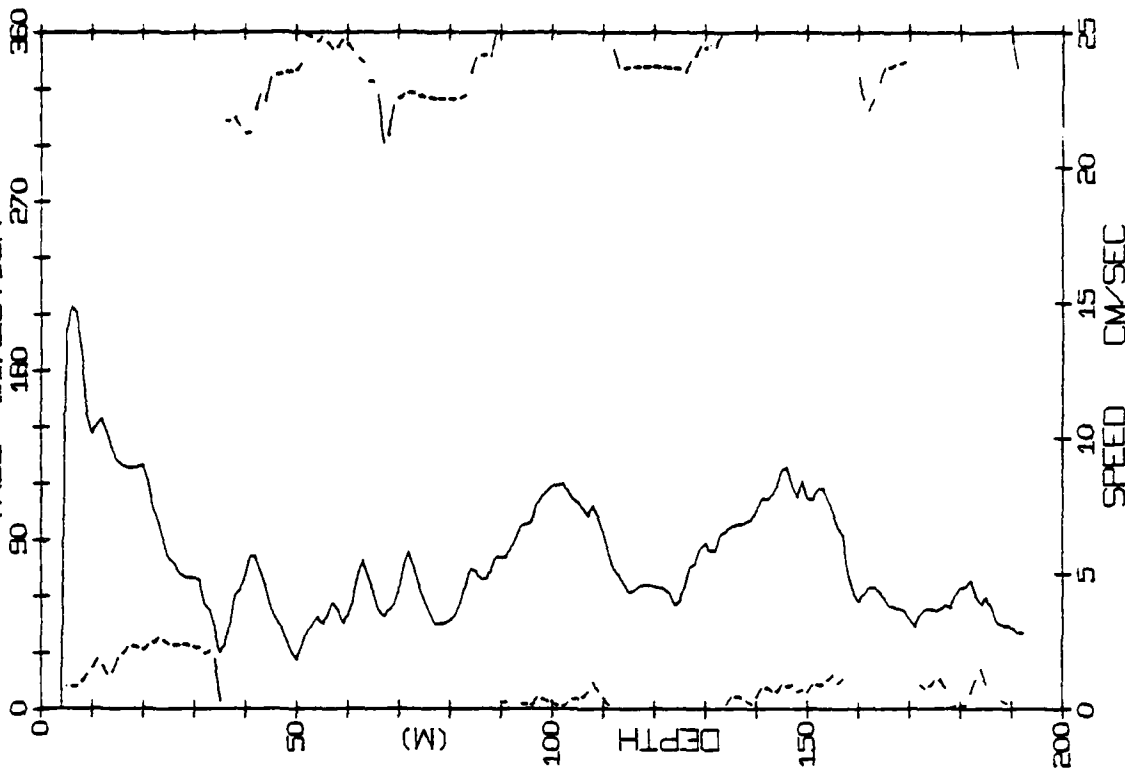
[illegible]



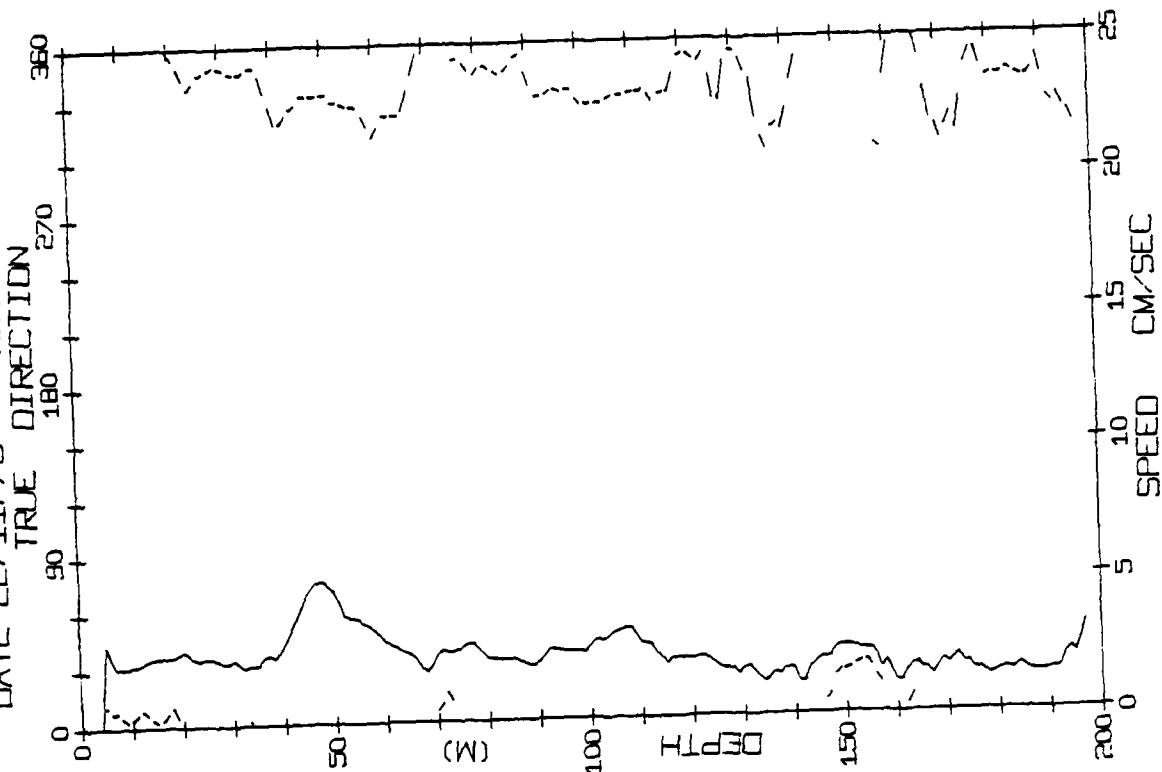
CAMP CARIBOU STATION 85
 DATE 21/11/75 TIME 1955 (GMT)
 TRUE DIRECTION



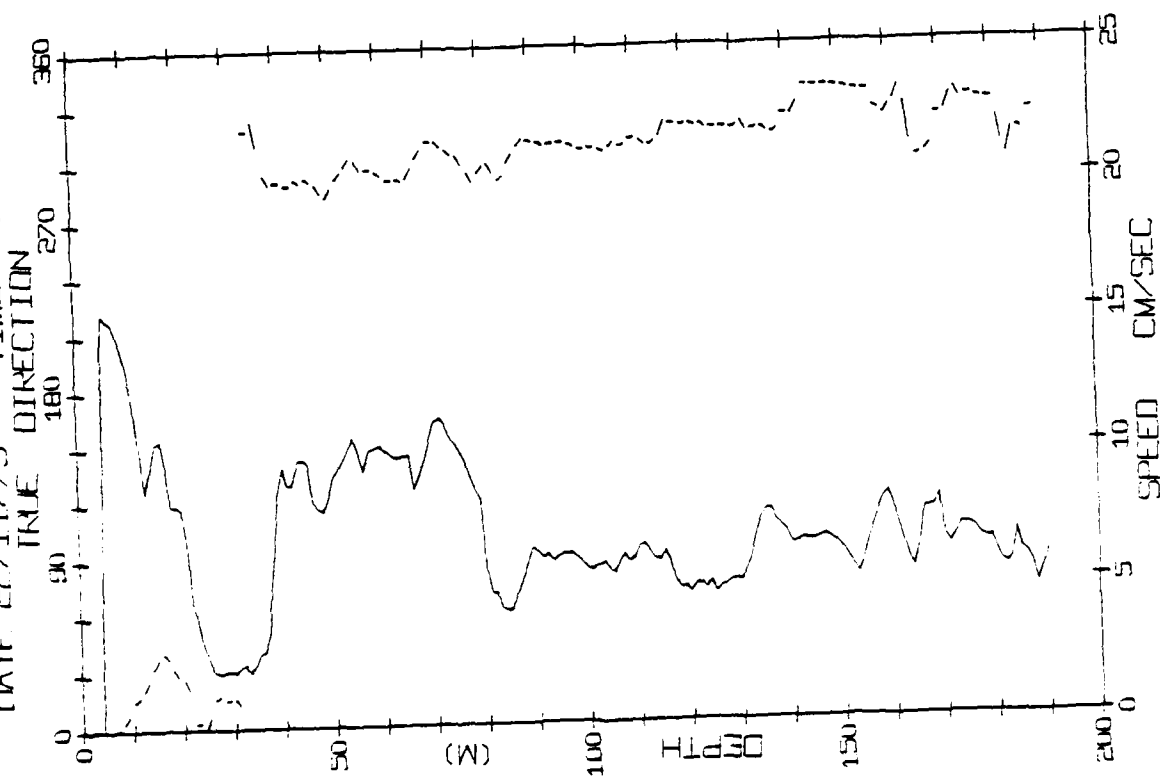
CAMP CARIBOU STATION 86
 DATE 21/11/75 TIME 2026 (GMT)
 TRUE DIRECTION

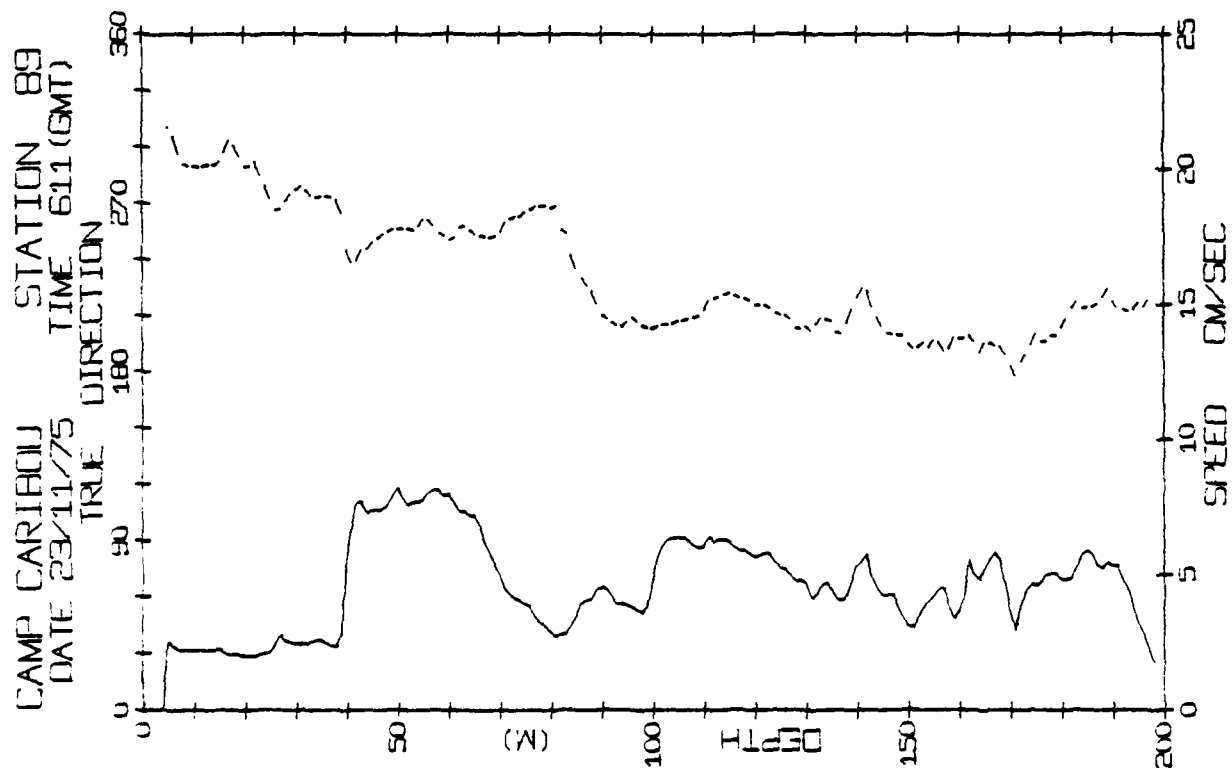
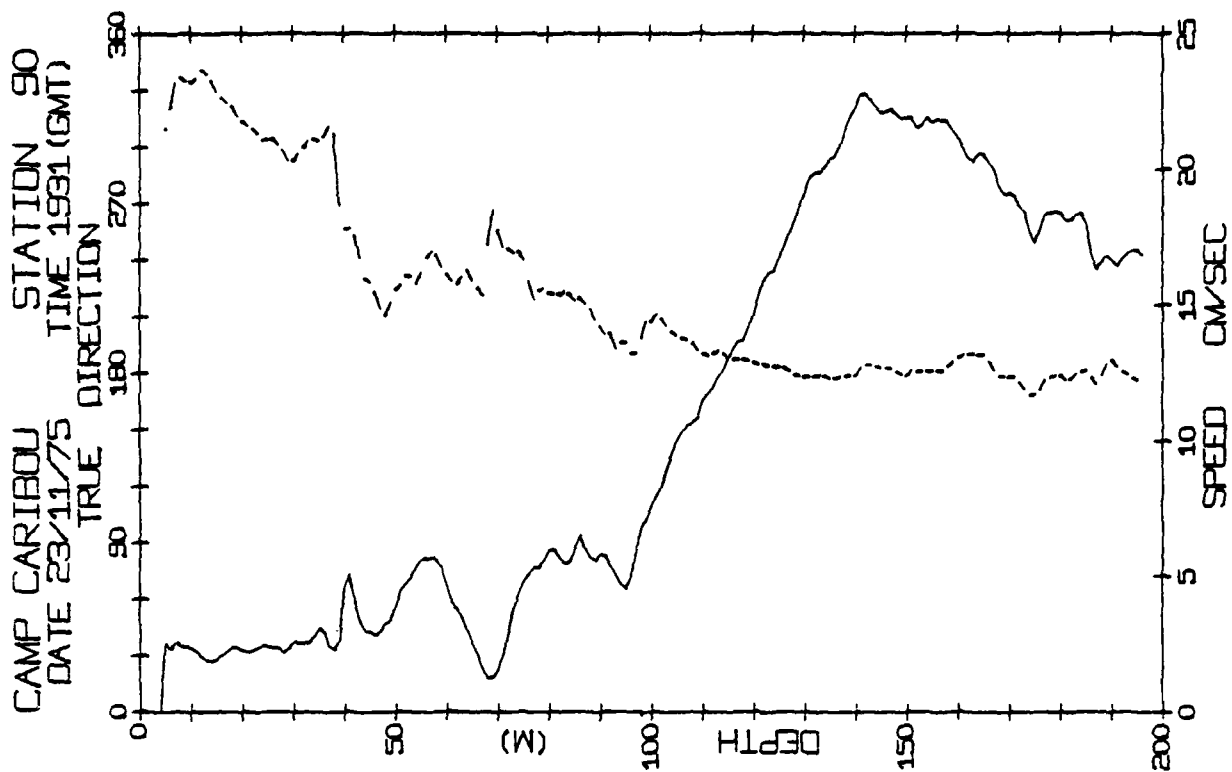


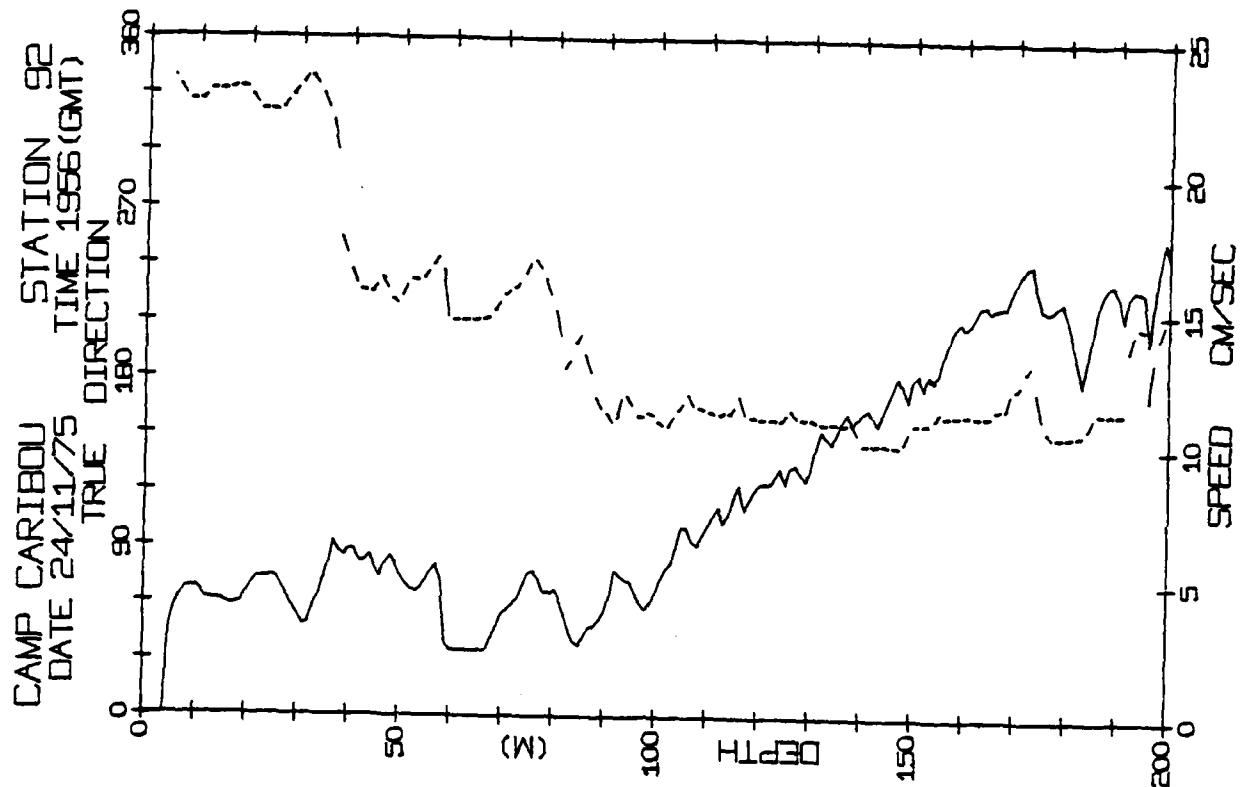
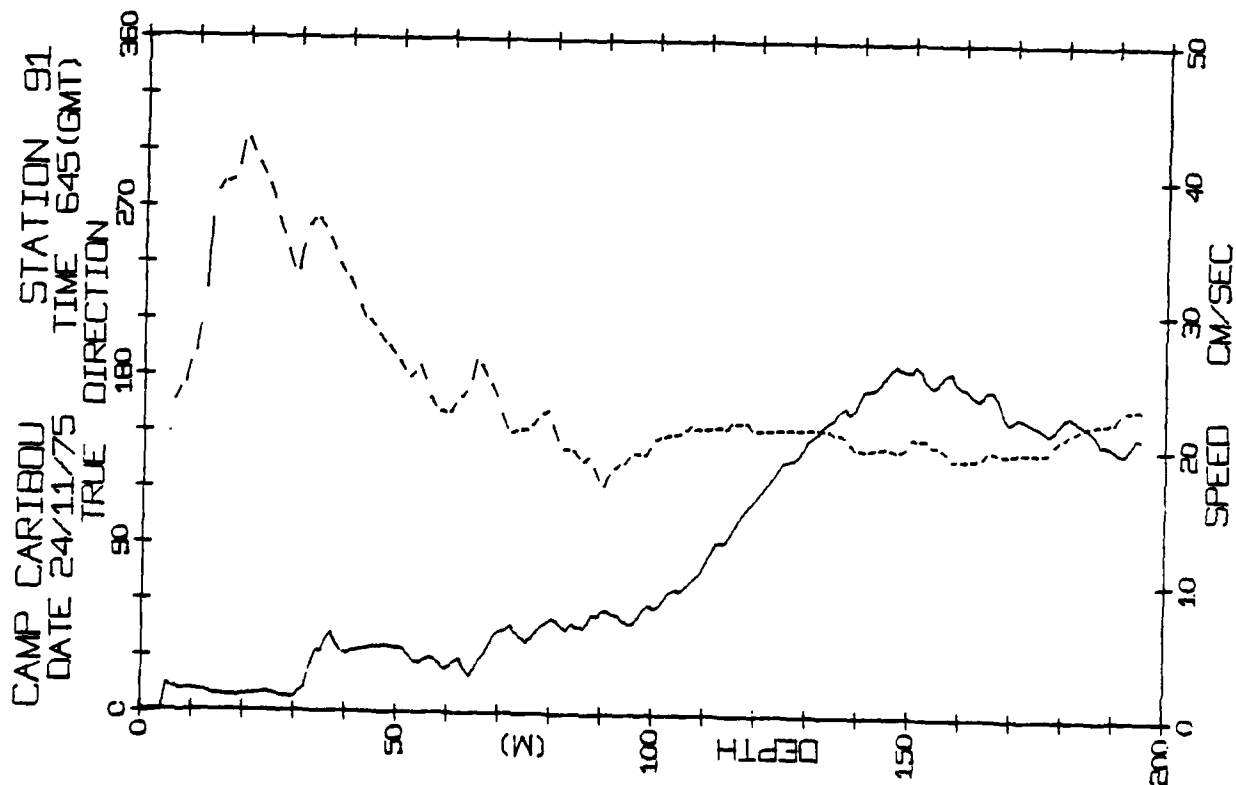
CAMP CARIBOU
DATE 22/11/75
STATION 88
TIME 2125 (GMT)

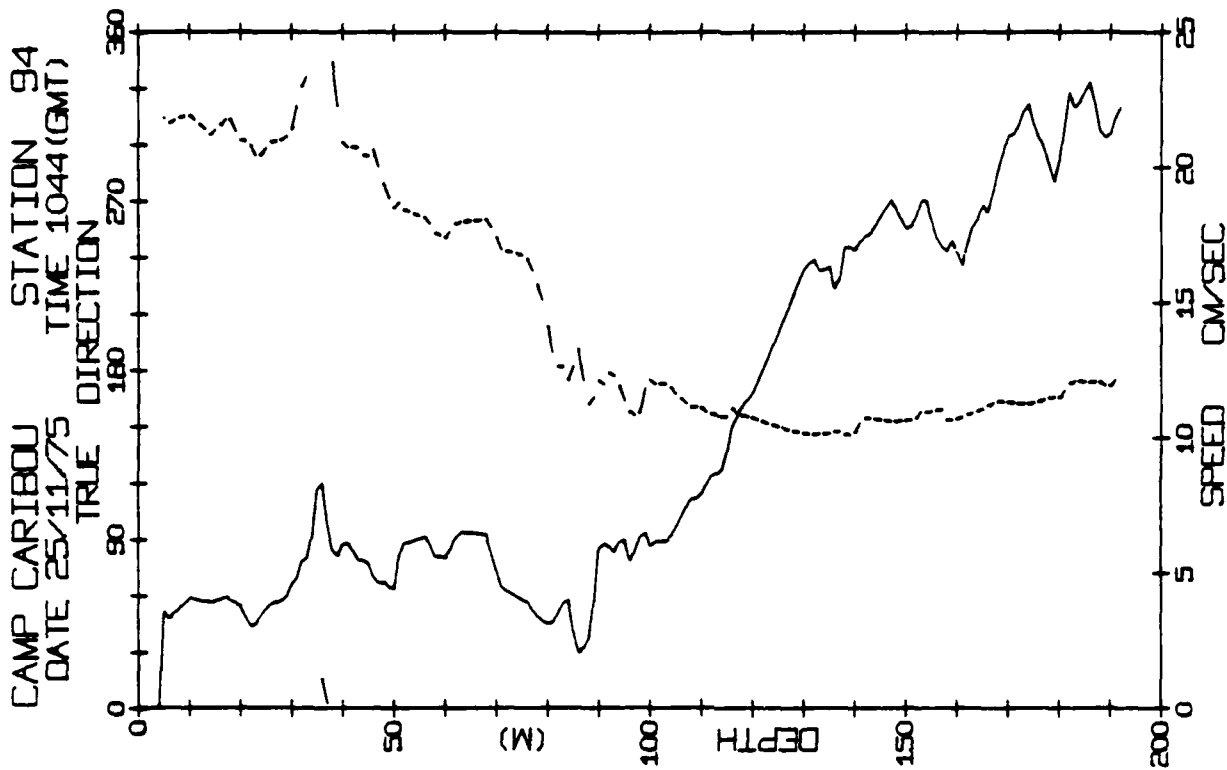
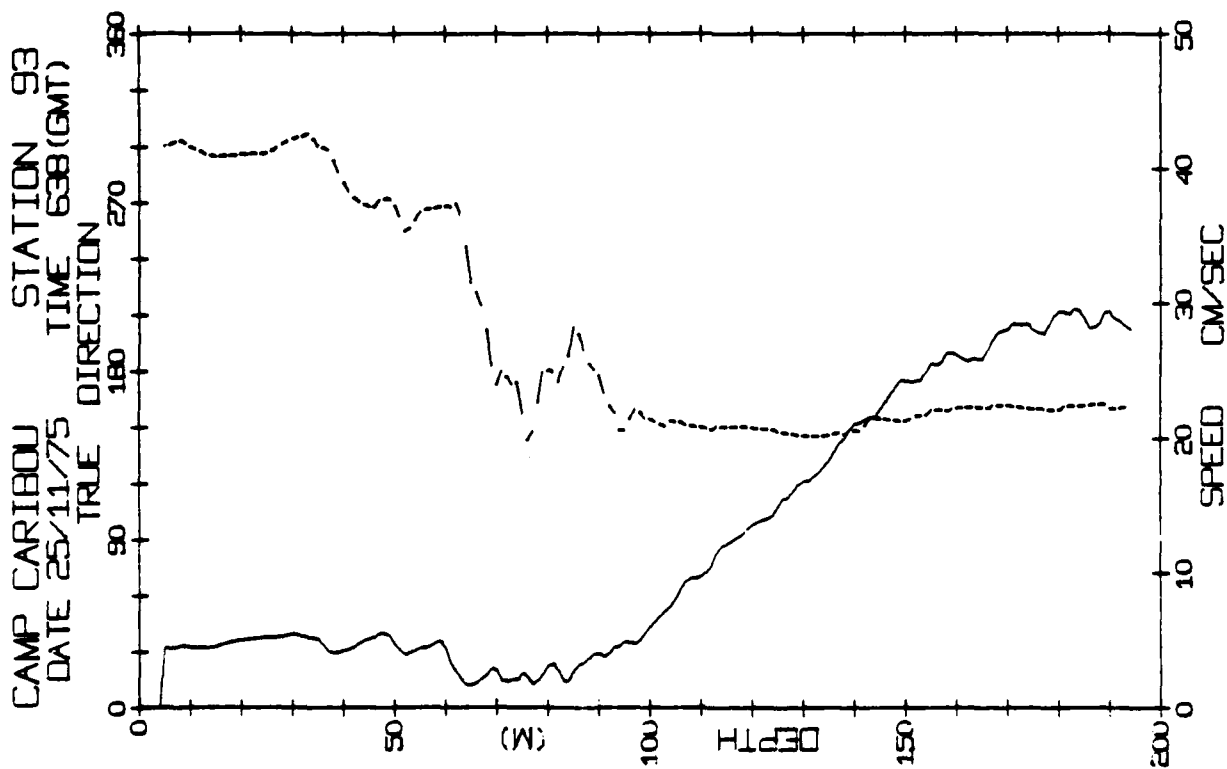


CAMP CARIBOU
DATE 22/11/75
STATION 87
TIME 558 (GMT)

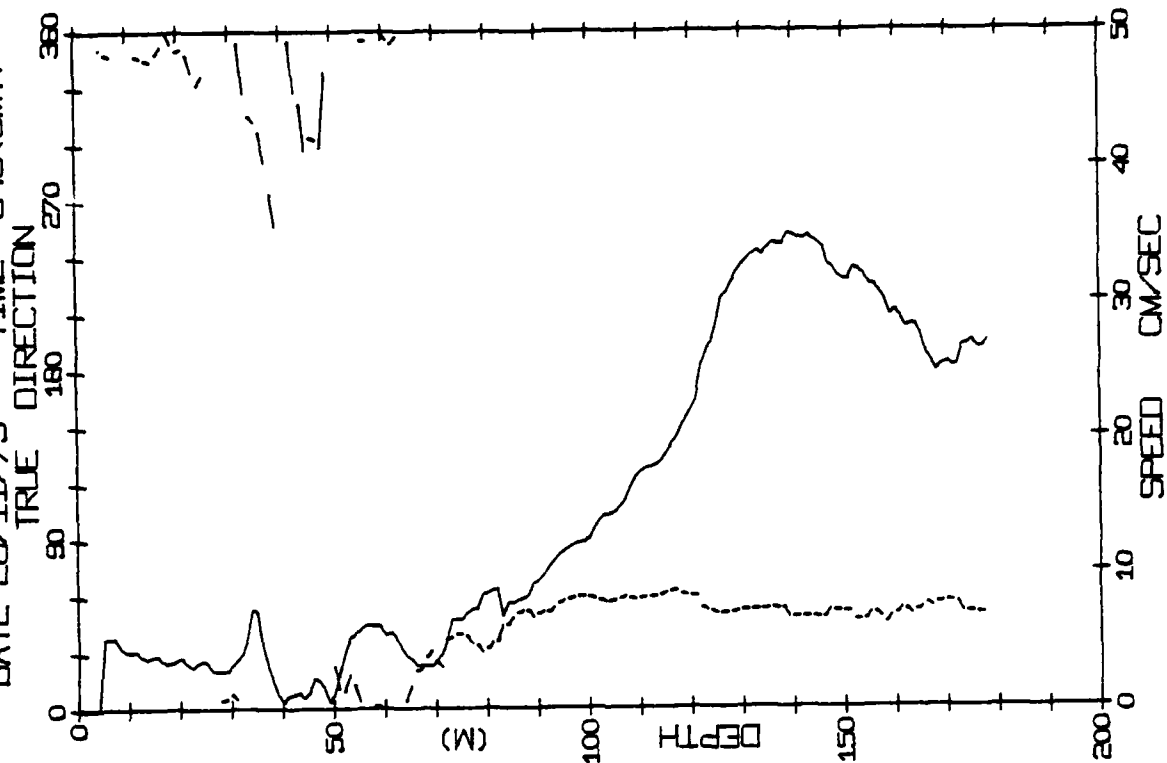




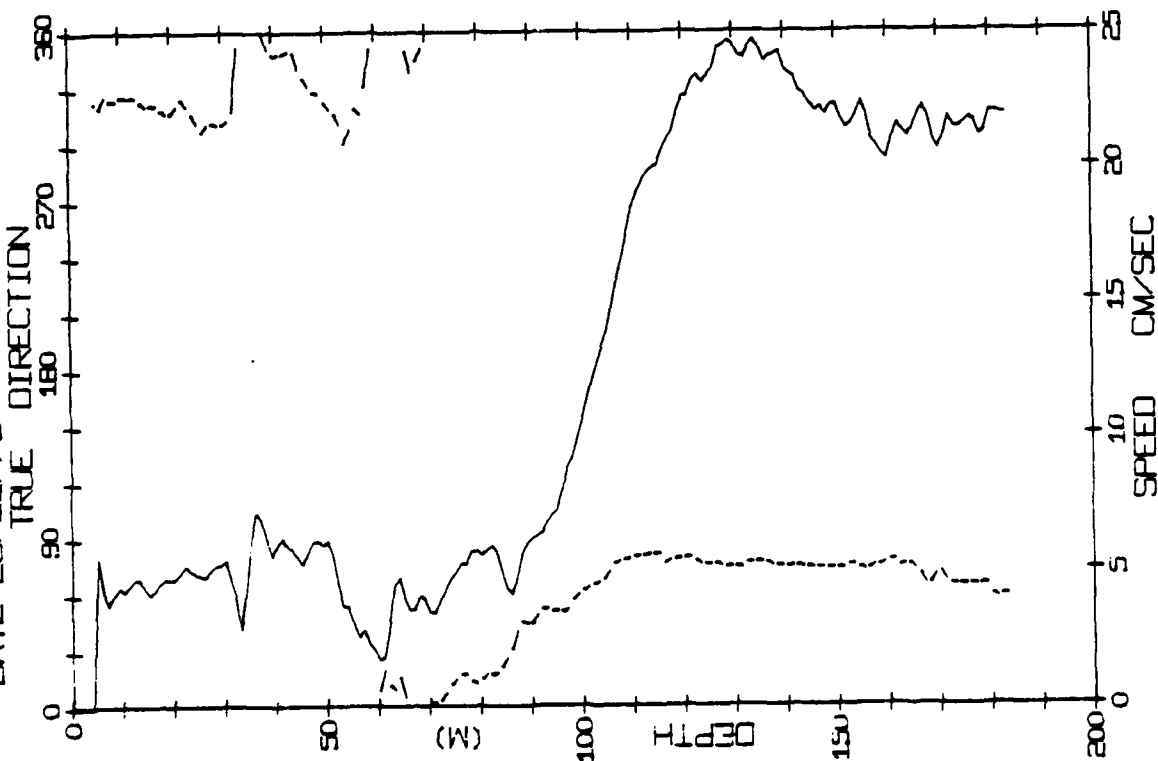




CAMP CARIBOU STATION 96
 DATE 26/11/75 TIME 643 (GMT)



CAMP CARIBOU STATION 95
 DATE 26/11/75 TIME 51 (GMT)



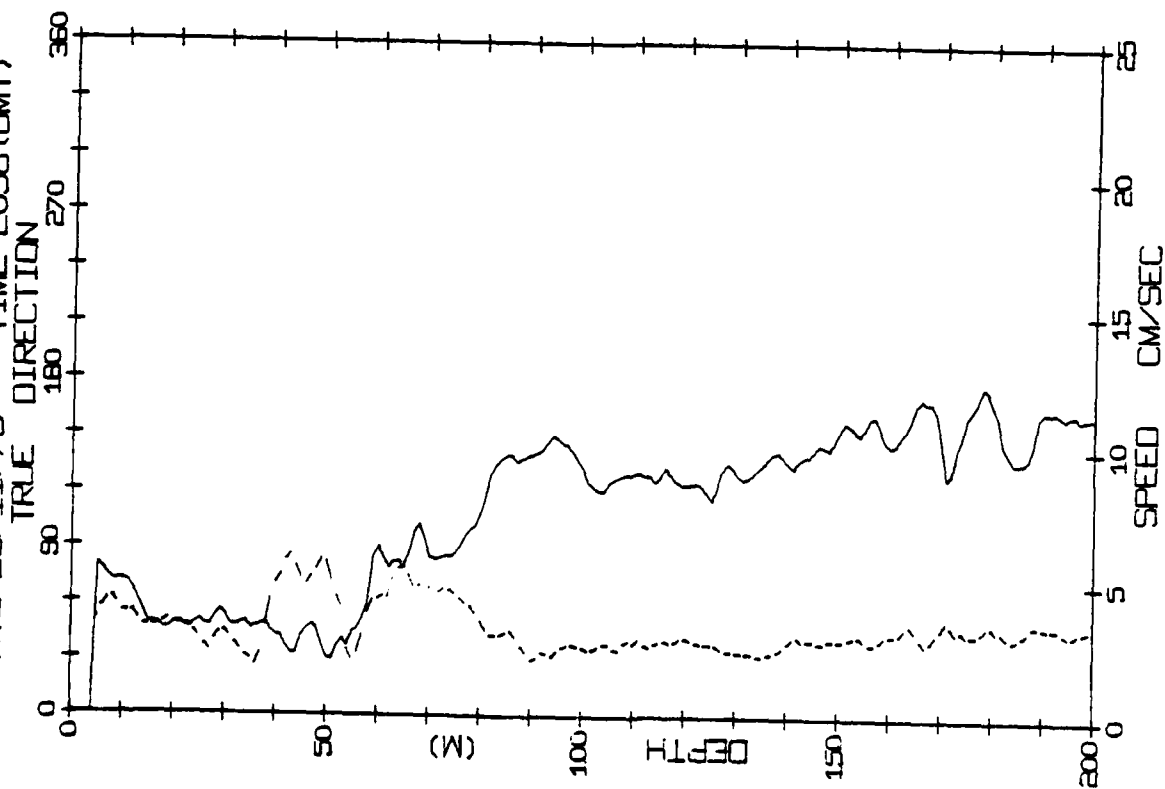
CANIMOU STATION 96 (17RM.) 26/NOV/75 643 GMT
 LAT=71.1530N LONG=142.7251W LTER= 0. LGEM= 1.
 NIVEL= 9.0 EVEL= -10.1 MVER= 0. EVEN= 0.

DPT	SPD	DRM
0	1.20	5.32
1	1.20	5.32
2	1.20	5.32
3	1.20	5.32
4	1.20	5.32
5	1.20	5.32
6	1.20	5.32
7	1.20	5.32
8	1.20	5.32
9	1.20	5.32
10	1.20	5.32
11	1.20	5.32
12	1.20	5.32
13	1.20	5.32
14	1.20	5.32
15	1.20	5.32
16	1.20	5.32
17	1.20	5.32
18	1.20	5.32
19	1.20	5.32
20	1.20	5.32
21	1.20	5.32
22	1.20	5.32
23	1.20	5.32
24	1.20	5.32
25	1.20	5.32
26	1.20	5.32
27	1.20	5.32
28	1.20	5.32
29	1.20	5.32
30	1.20	5.32
31	1.20	5.32
32	1.20	5.32
33	1.20	5.32
34	1.20	5.32
35	1.20	5.32
36	1.20	5.32
37	1.20	5.32
38	1.20	5.32
39	1.20	5.32
40	1.20	5.32
41	1.20	5.32
42	1.20	5.32
43	1.20	5.32
44	1.20	5.32
45	1.20	5.32
46	1.20	5.32
47	1.20	5.32
48	1.20	5.32
49	1.20	5.32
50	1.20	5.32
51	1.20	5.32
52	1.20	5.32
53	1.20	5.32
54	1.20	5.32
55	1.20	5.32
56	1.20	5.32
57	1.20	5.32
58	1.20	5.32
59	1.20	5.32
60	1.20	5.32
61	1.20	5.32
62	1.20	5.32
63	1.20	5.32
64	1.20	5.32
65	1.20	5.32
66	1.20	5.32
67	1.20	5.32
68	1.20	5.32
69	1.20	5.32
70	1.20	5.32
71	1.20	5.32
72	1.20	5.32
73	1.20	5.32
74	1.20	5.32
75	1.20	5.32
76	1.20	5.32
77	1.20	5.32
78	1.20	5.32
79	1.20	5.32
80	1.20	5.32
81	1.20	5.32
82	1.20	5.32
83	1.20	5.32
84	1.20	5.32
85	1.20	5.32
86	1.20	5.32
87	1.20	5.32
88	1.20	5.32
89	1.20	5.32
90	1.20	5.32
91	1.20	5.32
92	1.20	5.32
93	1.20	5.32
94	1.20	5.32
95	1.20	5.32
96	1.20	5.32
97	1.20	5.32
98	1.20	5.32
99	1.20	5.32
100	1.20	5.32

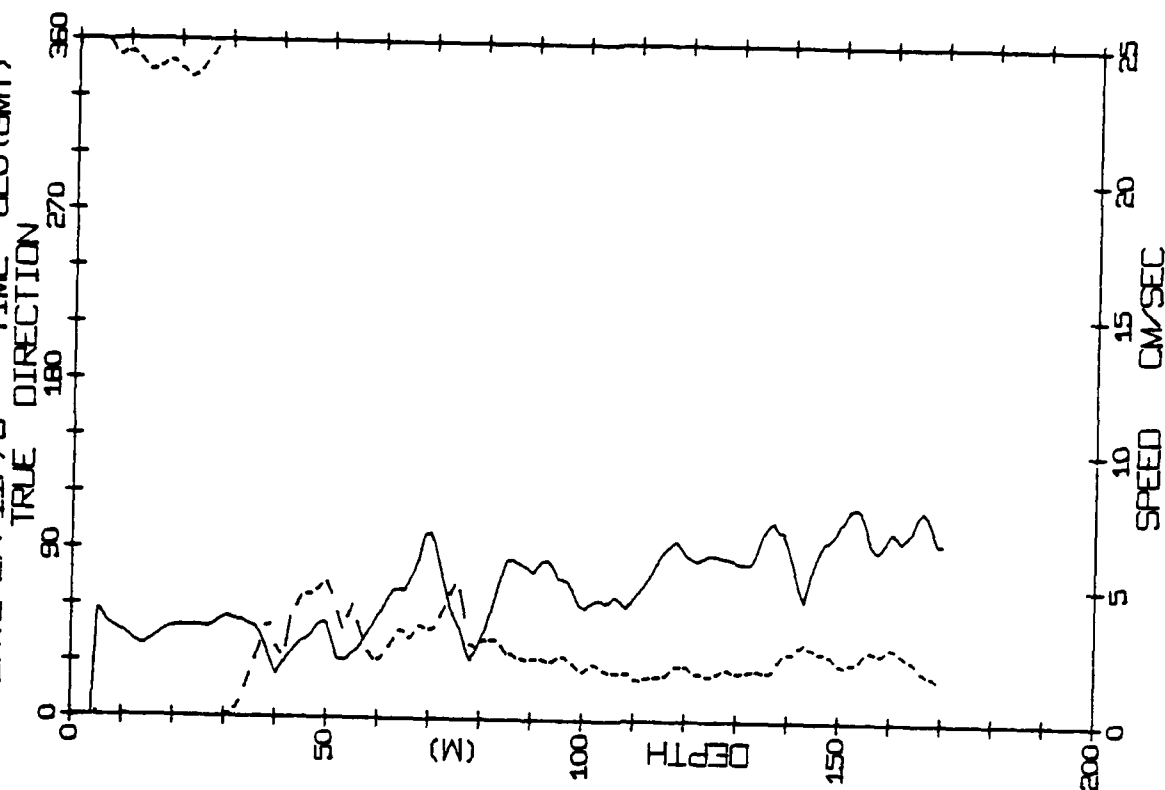
CANIMOU STATION 95 (183M.) 26/NOV/75 51 GMT
 LAT=73.3386N LONG=142.6540W LTER= 0. LGEM= 0.
 NIVEL= 5.0 EVEL= -11.4 MVER= 0. EVEN= 0.

DPT	SPD	DRM
0	1.20	5.32
1	1.20	5.32
2	1.20	5.32
3	1.20	5.32
4	1.20	5.32
5	1.20	5.32
6	1.20	5.32
7	1.20	5.32
8	1.20	5.32
9	1.20	5.32
10	1.20	5.32
11	1.20	5.32
12	1.20	5.32
13	1.20	5.32
14	1.20	5.32
15	1.20	5.32
16	1.20	5.32
17	1.20	5.32
18	1.20	5.32
19	1.20	5.32
20	1.20	5.32
21	1.20	5.32
22	1.20	5.32
23	1.20	5.32
24	1.20	5.32
25	1.20	5.32
26	1.20	5.32
27	1.20	5.32
28	1.20	5.32
29	1.20	5.32
30	1.20	5.32
31	1.20	5.32
32	1.20	5.32
33	1.20	5.32
34	1.20	5.32
35	1.20	5.32
36	1.20	5.32
37	1.20	5.32
38	1.20	5.32
39	1.20	5.32
40	1.20	5.32
41	1.20	5.32
42	1.20	5.32
43	1.20	5.32
44	1.20	5.32
45	1.20	5.32
46	1.20	5.32
47	1.20	5.32
48	1.20	5.32
49	1.20	5.32
50	1.20	5.32
51	1.20	5.32
52	1.20	5.32
53	1.20	5.32
54	1.20	5.32
55	1.20	5.32
56	1.20	5.32
57	1.20	5.32
58	1.20	5.32
59	1.20	5.32
60	1.20	5.32
61	1.20	5.32
62	1.20	5.32
63	1.20	5.32
64	1.20	5.32
65	1.20	5.32
66	1.20	5.32
67	1.20	5.32
68	1.20	5.32
69	1.20	5.32
70	1.20	5.32
71	1.20	5.32
72	1.20	5.32
73	1.20	5.32
74	1.20	5.32
75	1.20	5.32
76	1.20	5.32
77	1.20	5.32
78	1.20	5.32
79	1.20	5.32
80	1.20	5.32
81	1.20	5.32
82	1.20	5.32
83	1.20	5.32
84	1.20	5.32
85	1.20	5.32
86	1.20	5.32
87	1.20	5.32
88	1.20	5.32
89	1.20	5.32
90	1.20	5.32
91	1.20	5.32
92	1.20	5.32
93	1.20	5.32
94	1.20	5.32
95	1.20	5.32
96	1.20	5.32
97	1.20	5.32
98	1.20	5.32
99	1.20	5.32
100	1.20	5.32

CAMP CARIBOU
DATE 26/11/75
STATION 97
TIME 2056 (GMT)



CAMP CARIBOU
DATE 27/11/75
STATION 98
TIME 620 (GMT)

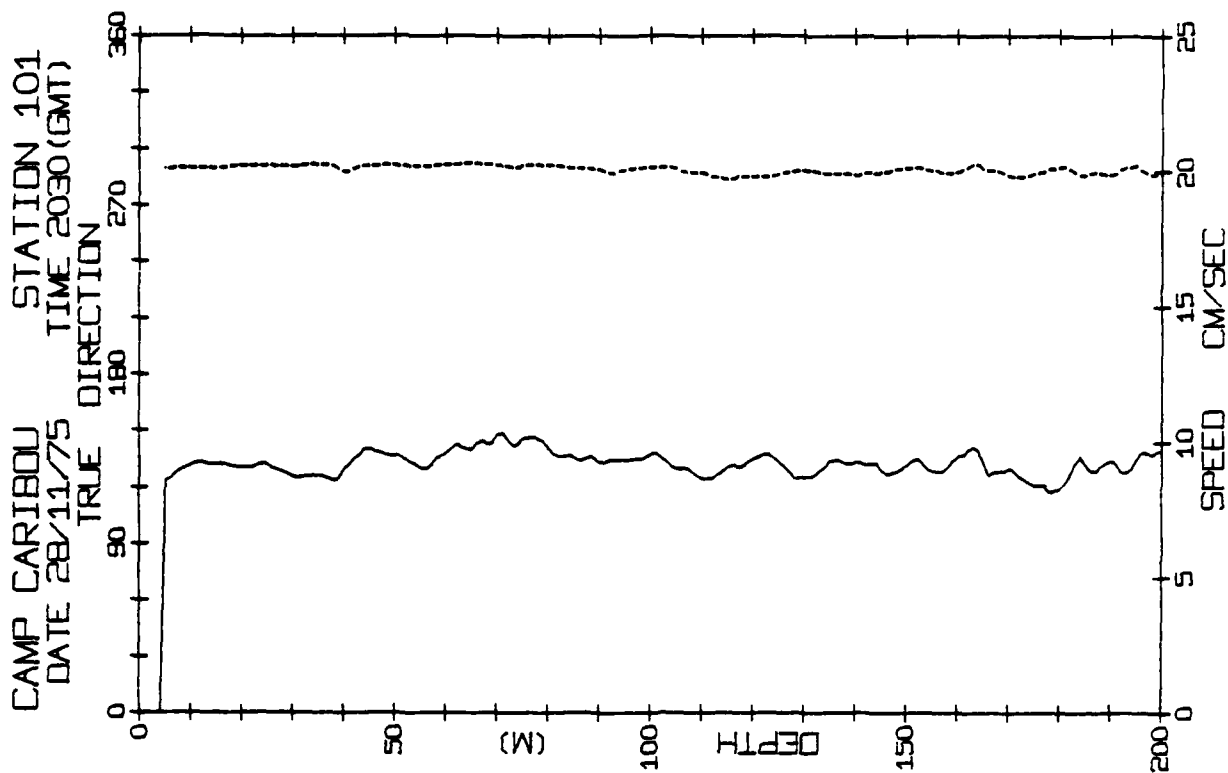
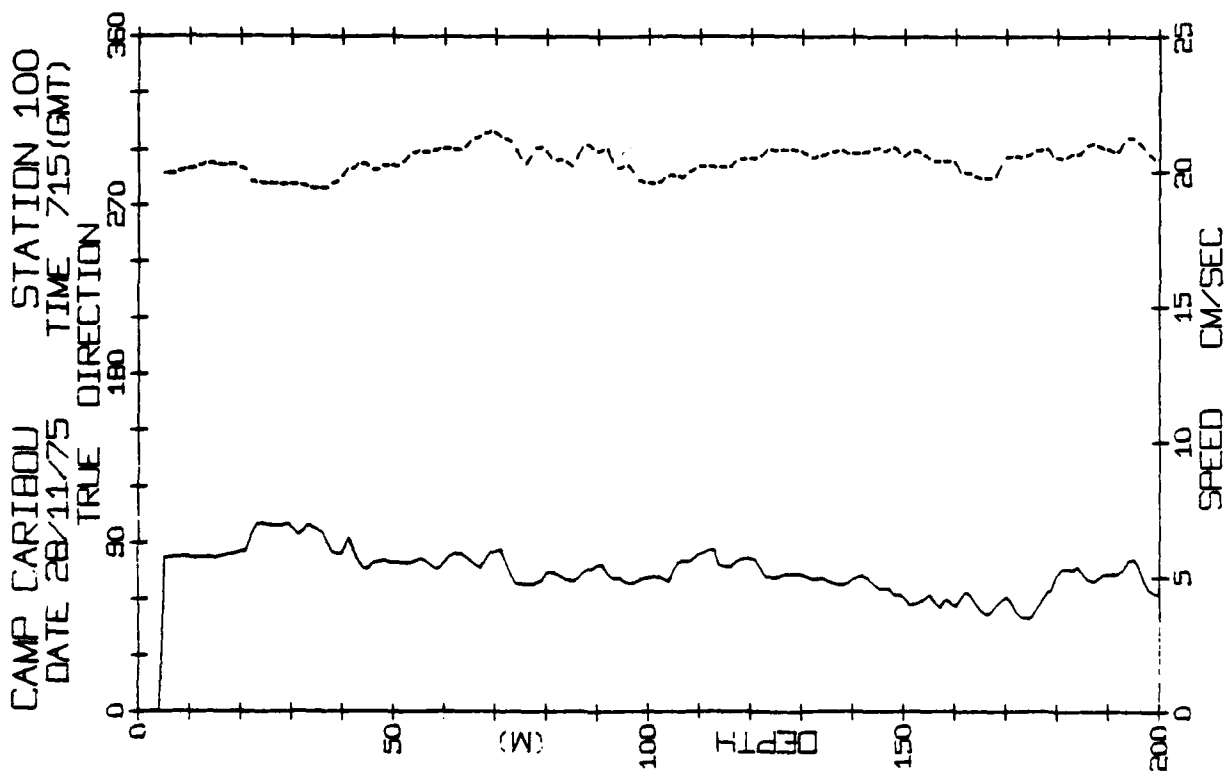


CARIBOU STATION 98 (170M.) 27/NOV/75 620 GMT
 LAT= 73.2167N LONG= 142.1939W LTER= 1. LGH= 2.
 NVEL= 6.8 EVEL= -2.1 NVER= 0. EVEN= 0.

DPT	SPD	DNM	DPT	SPD	DNM	DPT	SPD	DNM	DPT	SPD	DNM
0	1.2	3.4	5.6	7.8	9.0	1.1	2.3	4.5	6.7	8.9	0.1
1	1.1	2.2	3.3	4.4	5.5	1.2	2.4	3.5	4.6	5.7	0.2
2	1.0	2.1	3.2	4.3	5.4	1.3	2.5	3.6	4.7	5.8	0.3
3	0.9	2.0	3.1	4.2	5.3	1.4	2.6	3.7	4.8	5.9	0.4
4	0.8	1.9	3.0	4.1	5.2	1.5	2.7	3.8	4.9	6.0	0.5
5	0.7	1.8	2.9	4.0	5.1	1.6	2.8	3.9	5.0	6.1	0.6
6	0.6	1.7	2.8	3.9	5.0	1.7	2.9	4.0	5.1	6.2	0.7
7	0.5	1.6	2.7	3.8	4.9	1.8	3.0	4.1	5.2	6.3	0.8
8	0.4	1.5	2.6	3.7	4.8	1.9	3.1	4.2	5.3	6.4	0.9
9	0.3	1.4	2.5	3.6	4.7	2.0	3.2	4.3	5.4	6.5	1.0
10	0.2	1.3	2.4	3.5	4.6	2.1	3.3	4.4	5.5	6.6	1.1
11	0.1	1.2	2.3	3.4	4.5	2.2	3.4	4.5	5.6	6.7	1.2
12	0.0	1.1	2.2	3.3	4.4	2.3	3.5	4.6	5.7	6.8	1.3
13	0.0	1.0	2.1	3.2	4.3	2.4	3.6	4.7	5.8	6.9	1.4
14	0.0	0.9	2.0	3.1	4.2	2.5	3.7	4.8	5.9	7.0	1.5
15	0.0	0.8	1.9	3.0	4.1	2.6	3.8	4.9	6.0	7.1	1.6
16	0.0	0.7	1.8	2.9	4.0	2.7	3.9	5.0	6.1	7.2	1.7
17	0.0	0.6	1.7	2.8	3.9	2.8	4.0	5.1	6.2	7.3	1.8
18	0.0	0.5	1.6	2.7	3.8	2.9	4.1	5.2	6.3	7.4	1.9
19	0.0	0.4	1.5	2.6	3.7	3.0	4.2	5.3	6.4	7.5	2.0
20	0.0	0.3	1.4	2.5	3.6	3.1	4.3	5.4	6.5	7.6	2.1
21	0.0	0.2	1.3	2.4	3.5	3.2	4.4	5.5	6.6	7.7	2.2
22	0.0	0.1	1.2	2.3	3.4	3.3	4.5	5.6	6.7	7.8	2.3
23	0.0	0.0	1.1	2.2	3.3	3.4	4.6	5.7	6.8	7.9	2.4
24	0.0	0.0	1.0	2.1	3.2	3.5	4.7	5.8	6.9	8.0	2.5
25	0.0	0.0	0.9	2.0	3.1	3.6	4.8	5.9	7.0	8.1	2.6
26	0.0	0.0	0.8	1.9	3.0	3.7	4.9	6.0	7.1	8.2	2.7
27	0.0	0.0	0.7	1.8	2.9	3.8	5.0	6.1	7.2	8.3	2.8
28	0.0	0.0	0.6	1.7	2.8	3.9	5.1	6.2	7.3	8.4	2.9
29	0.0	0.0	0.5	1.6	2.7	4.0	5.2	6.3	7.4	8.5	3.0
30	0.0	0.0	0.4	1.5	2.6	4.1	5.3	6.4	7.5	8.6	3.1
31	0.0	0.0	0.3	1.4	2.5	4.2	5.4	6.5	7.6	8.7	3.2
32	0.0	0.0	0.2	1.3	2.4	4.3	5.5	6.6	7.7	8.8	3.3
33	0.0	0.0	0.1	1.2	2.3	4.4	5.6	6.7	7.8	8.9	3.4
34	0.0	0.0	0.0	1.1	2.2	4.5	5.7	6.8	7.9	9.0	3.5
35	0.0	0.0	0.0	1.0	2.1	4.6	5.8	6.9	8.0	9.1	3.6
36	0.0	0.0	0.0	0.9	2.0	4.7	5.9	7.0	8.1	9.2	3.7
37	0.0	0.0	0.0	0.8	1.9	4.8	6.0	7.1	8.2	9.3	3.8
38	0.0	0.0	0.0	0.7	1.8	4.9	6.1	7.2	8.3	9.4	3.9
39	0.0	0.0	0.0	0.6	1.7	5.0	6.2	7.3	8.4	9.5	4.0
40	0.0	0.0	0.0	0.5	1.6	5.1	6.3	7.4	8.5	9.6	4.1
41	0.0	0.0	0.0	0.4	1.5	5.2	6.4	7.5	8.6	9.7	4.2
42	0.0	0.0	0.0	0.3	1.4	5.3	6.5	7.6	8.7	9.8	4.3
43	0.0	0.0	0.0	0.2	1.3	5.4	6.6	7.7	8.8	9.9	4.4
44	0.0	0.0	0.0	0.1	1.2	5.5	6.7	7.8	8.9	10.0	4.5
45	0.0	0.0	0.0	0.0	1.1	5.6	6.8	7.9	9.0	10.1	4.6
46	0.0	0.0	0.0	0.0	1.0	5.7	6.9	8.0	9.1	10.2	4.7
47	0.0	0.0	0.0	0.0	0.9	5.8	7.0	8.1	9.2	10.3	4.8
48	0.0	0.0	0.0	0.0	0.8	5.9	7.1	8.2	9.3	10.4	4.9
49	0.0	0.0	0.0	0.0	0.7	6.0	7.2	8.3	9.4	10.5	5.0
50	0.0	0.0	0.0	0.0	0.6	6.1	7.3	8.4	9.5	10.6	5.1
51	0.0	0.0	0.0	0.0	0.5	6.2	7.4	8.5	9.6	10.7	5.2
52	0.0	0.0	0.0	0.0	0.4	6.3	7.5	8.6	9.7	10.8	5.3
53	0.0	0.0	0.0	0.0	0.3	6.4	7.6	8.7	9.8	10.9	5.4
54	0.0	0.0	0.0	0.0	0.2	6.5	7.7	8.8	9.9	11.0	5.5
55	0.0	0.0	0.0	0.0	0.1	6.6	7.8	8.9	10.0	11.1	5.6
56	0.0	0.0	0.0	0.0	0.0	6.7	7.9	9.0	10.1	11.2	5.7
57	0.0	0.0	0.0	0.0	0.0	6.8	8.0	9.1	10.2	11.3	5.8
58	0.0	0.0	0.0	0.0	0.0	6.9	8.1	9.2	10.3	11.4	5.9
59	0.0	0.0	0.0	0.0	0.0	7.0	8.2	9.3	10.4	11.5	6.0
60	0.0	0.0	0.0	0.0	0.0	7.1	8.3	9.4	10.5	11.6	6.1
61	0.0	0.0	0.0	0.0	0.0	7.2	8.4	9.5	10.6	11.7	6.2
62	0.0	0.0	0.0	0.0	0.0	7.3	8.5	9.6	10.7	11.8	6.3
63	0.0	0.0	0.0	0.0	0.0	7.4	8.6	9.7	10.8	11.9	6.4
64	0.0	0.0	0.0	0.0	0.0	7.5	8.7	9.8	10.9	12.0	6.5
65	0.0	0.0	0.0	0.0	0.0	7.6	8.8	9.9	11.0	12.1	6.6
66	0.0	0.0	0.0	0.0	0.0	7.7	8.9	10.0	11.1	12.2	6.7
67	0.0	0.0	0.0	0.0	0.0	7.8	9.0	10.1	11.2	12.3	6.8
68	0.0	0.0	0.0	0.0	0.0	7.9	9.1	10.2	11.3	12.4	6.9
69	0.0	0.0	0.0	0.0	0.0	8.0	9.2	10.3	11.4	12.5	7.0
70	0.0	0.0	0.0	0.0	0.0	8.1	9.3	10.4	11.5	12.6	7.1
71	0.0	0.0	0.0	0.0	0.0	8.2	9.4	10.5	11.6	12.7	7.2
72	0.0	0.0	0.0	0.0	0.0	8.3	9.5	10.6	11.7	12.8	7.3
73	0.0	0.0	0.0	0.0	0.0	8.4	9.6	10.7	11.8	12.9	7.4
74	0.0	0.0	0.0	0.0	0.0	8.5	9.7	10.8	11.9	13.0	7.5
75	0.0	0.0	0.0	0.0	0.0	8.6	9.8	10.9	12.0	13.1	7.6
76	0.0	0.0	0.0	0.0	0.0	8.7	9.9	11.0	12.1	13.2	7.7
77	0.0	0.0	0.0	0.0	0.0	8.8	10.0	11.1	12.2	13.3	7.8
78	0.0	0.0	0.0	0.0	0.0	8.9	10.1	11.2	12.3	13.4	7.9
79	0.0	0.0	0.0	0.0	0.0	9.0	10.2	11.3	12.4	13.5	8.0
80	0.0	0.0	0.0	0.0	0.0	9.1	10.3	11.4	12.5	13.6	8.1
81	0.0	0.0	0.0	0.0	0.0	9.2	10.4	11.5	12.6	13.7	8.2
82	0.0	0.0	0.0	0.0	0.0	9.3	10.5	11.6	12.7	13.8	8.3
83	0.0	0.0	0.0	0.0	0.0	9.4	10.6	11.7	12.8	13.9	8.4
84	0.0	0.0	0.0	0.0	0.0	9.5	10.7	11.8	12.9	14.0	8.5
85	0.0	0.0	0.0	0.0	0.0	9.6	10.8	11.9	13.0	14.1	8.6
86	0.0	0.0	0.0	0.0	0.0	9.7	10.9	12.0	13.1	14.2	8.7
87	0.0	0.0	0.0	0.0	0.0	9.8	11.0	12.1	13.2	14.3	8.8
88	0.0	0.0	0.0	0.0	0.0	9.9	11.1	12.2	13.3	14.4	8.9
89	0.0	0.0	0.0	0.0	0.0	10.0	11.2	12.3	13.4	14.5	9.0
90	0.0	0.0	0.0	0.0	0.0	10.1	11.3	12.4	13.5	14.6	9.1
91	0.0	0.0	0.0	0.0	0.0	10.2	11.4	12.5	13.6	14.7	9.2
92	0.0	0.0	0.0	0.0	0.0	10.3	11.5	12.6	13.7	14.8	9.3
93	0.0	0.0	0.0	0.0	0.0	10.4	11.6	12.7	13.8	14.9	9.4
94	0.0	0.0	0.0	0.0	0.0	10.5	11.7	12.8	13.9	15.0	9.5
95	0.0	0.0	0.0	0.0	0.0	10.6	11.8	12.9	14.0	15.1	9.6
96	0.0	0.0	0.0	0.0	0.0	10.7	11.9	13.0	14.1	15.2	9.7
97	0.0	0.0	0.0	0.0	0.0	10.8	12.0	13.1	14.2	15.3	9.8
98	0.0	0.0	0.0	0.0	0.0	10.9	12.1	13.2	14.3	15.4	9.9
99	0.0	0.0	0.0	0.0	0.0	11.0	12.2	13.3	14.4	15.5	10.0

CARIBOU STATION 97 (200M.) 26/NOV/75 2056 GMT
 LAT= 73.1993N LONG= 142.1855W LTER= 1. LGH= 1.
 NVEL= 9.0 EVEL= 0. NVER= 0. EVEN= 0.

DPT	SPD	DNM	DPT	SPD	DNM	DPT	SPD	DNM	DPT	SPD	DNM
0	1.2	3.4	5.6	7.8	9.0	1.1	2.3	4.5	6.7	8.9	0.1
1	1.1	2.2	3.3	4.4	5.5	1.2	2.4	3.5	4.6	5.7	0.2
2	1.0	2.1	3.2	4.3	5.4	1.3	2.5	3.6	4.7	5.8	0.3
3	0.9	2.0	3.1	4.2	5.3	1.4	2.6	3.7	4.8	5.9	0.4
4	0.8	1.9	3.0	4.1	5.2	1.5	2.7	3.8	4.9	6.0	0.5
5	0.7	1.8	2.9	4.0	5.1	1.6	2.8	3.9	5.0	6.1	0.6
6	0.6	1.7	2.8	3.9	5.0	1.7	2.9	4.0	5.1	6.2	0.7
7	0.5	1.6	2.7	3.8	4.9	1.8	3.0	4.1	5.2	6.3	0.8
8	0.4	1.5	2.6	3.7	4.8	1.9	3.1	4.2	5.3	6.4	0.9
9	0.3	1.4	2.5	3.6	4.7	2.0	3.2	4.3	5.4	6.5	1.0
10	0.2	1.3	2.4	3.5	4.6	2.1	3.3	4.4	5.5	6.6	1.1
11	0.1	1.2	2.3	3.4	4.5	2.2	3.4	4.5	5.6	6.7	1.2
12	0.0	1.1	2.2	3.3	4.4	2.3	3.5	4.6	5.7	6.8	1.3
13	0.0	1.0	2.1	3.2	4.3	2.4	3.6	4.7	5.8	6.9	1.4
14	0.0	0.9	2.0	3.1	4.2	2.5	3.7	4.8	5.9	7.0	1.5
15	0.0	0.8	1.9	3.0	4.1	2.6	3.8	4.9	6.0	7.1	1.6
16	0.0	0.7	1.8	2.9	4.0	2.7	3.9	5.0			



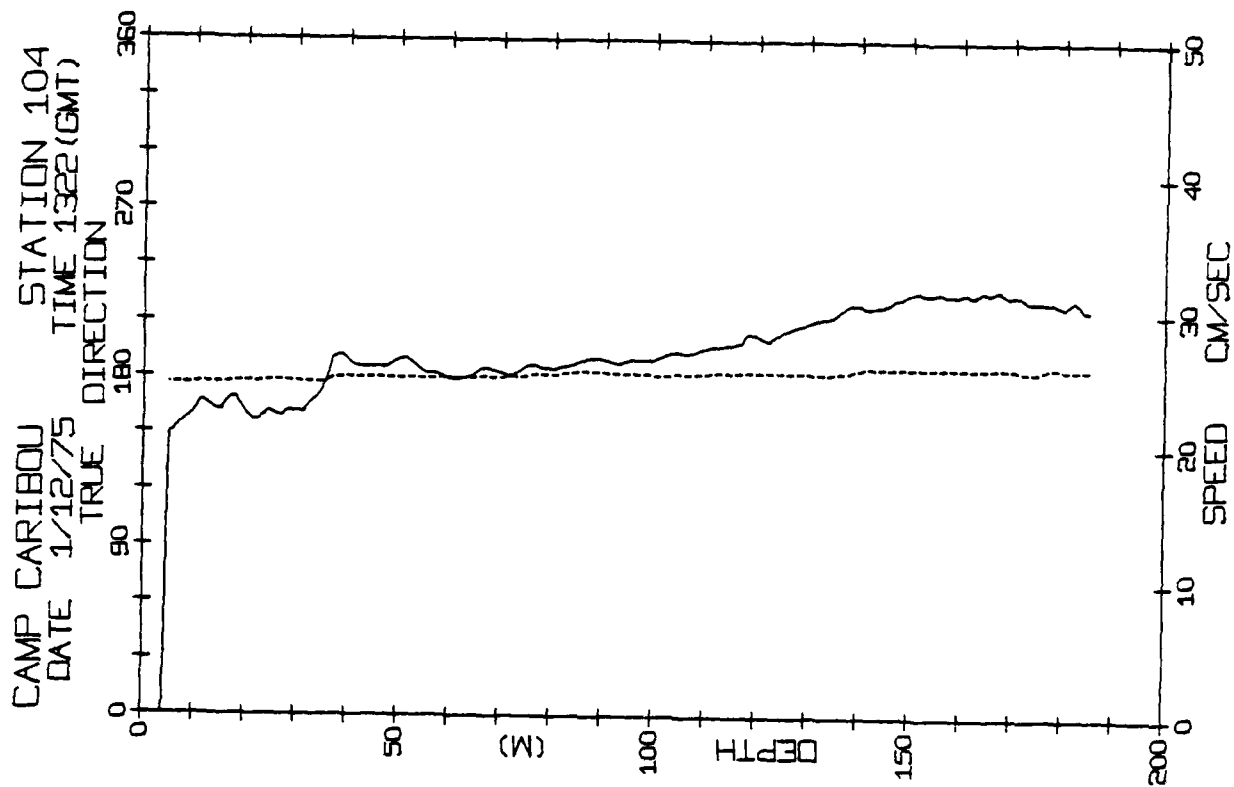
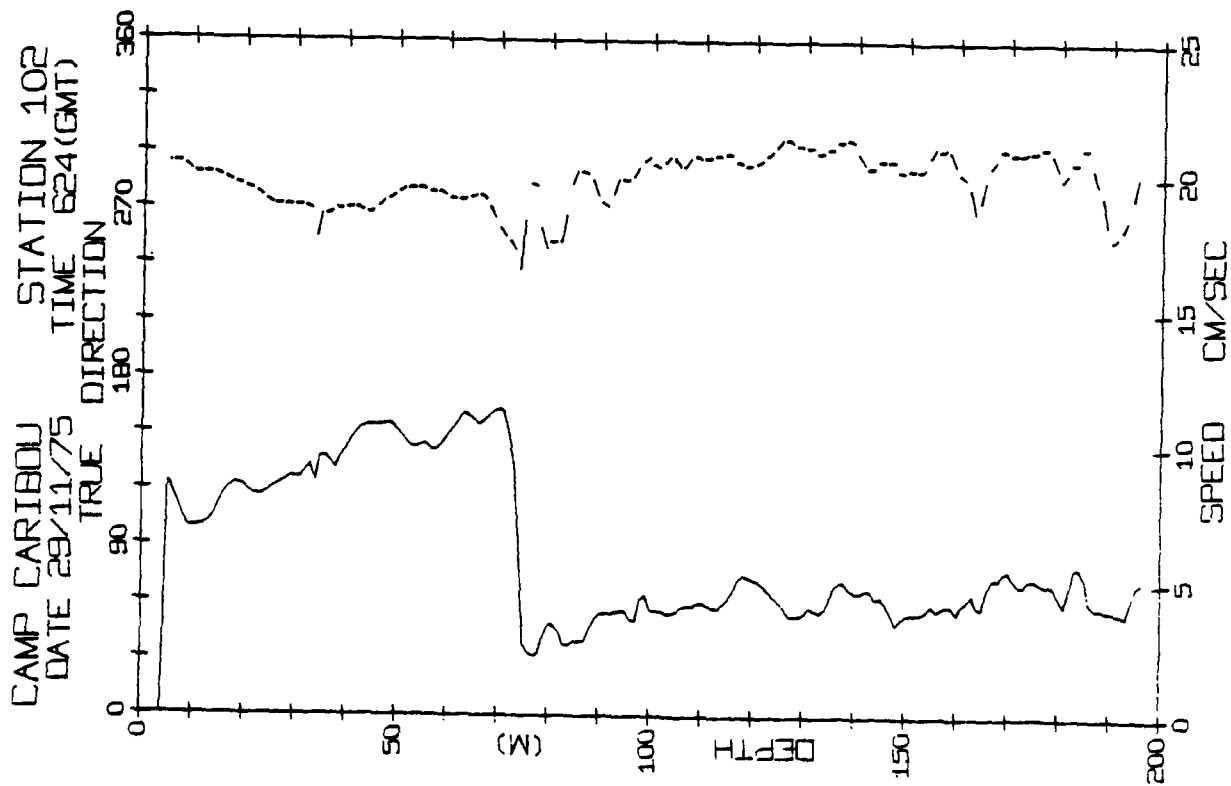
CARIBOU STATION 101 (200M.) 28/NOV/75 2030 GMT
 LAT= 73.2327N LONG= 143.0144W LTER= 1. 1.GER= 1.
 ELEV= 4.6 EVEL= -4.4 NVER= 0. EVER= 0.

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CARIBOU STATION 100 (200M.) 715 GMT
LAT= 73.224N LONG= 142.9215W LTER= 1.
NIVEL= 3.1 EIVEL= -3.5 NVER= 0.
EVEN= 0.

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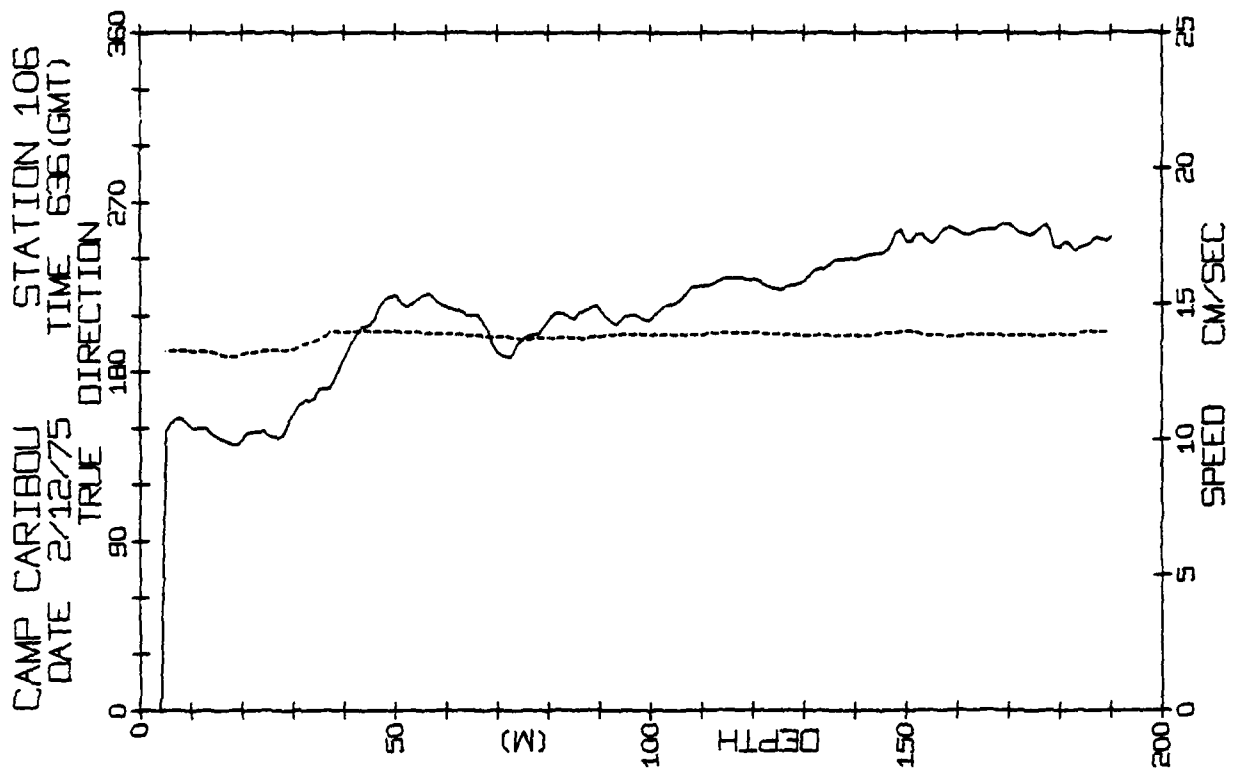
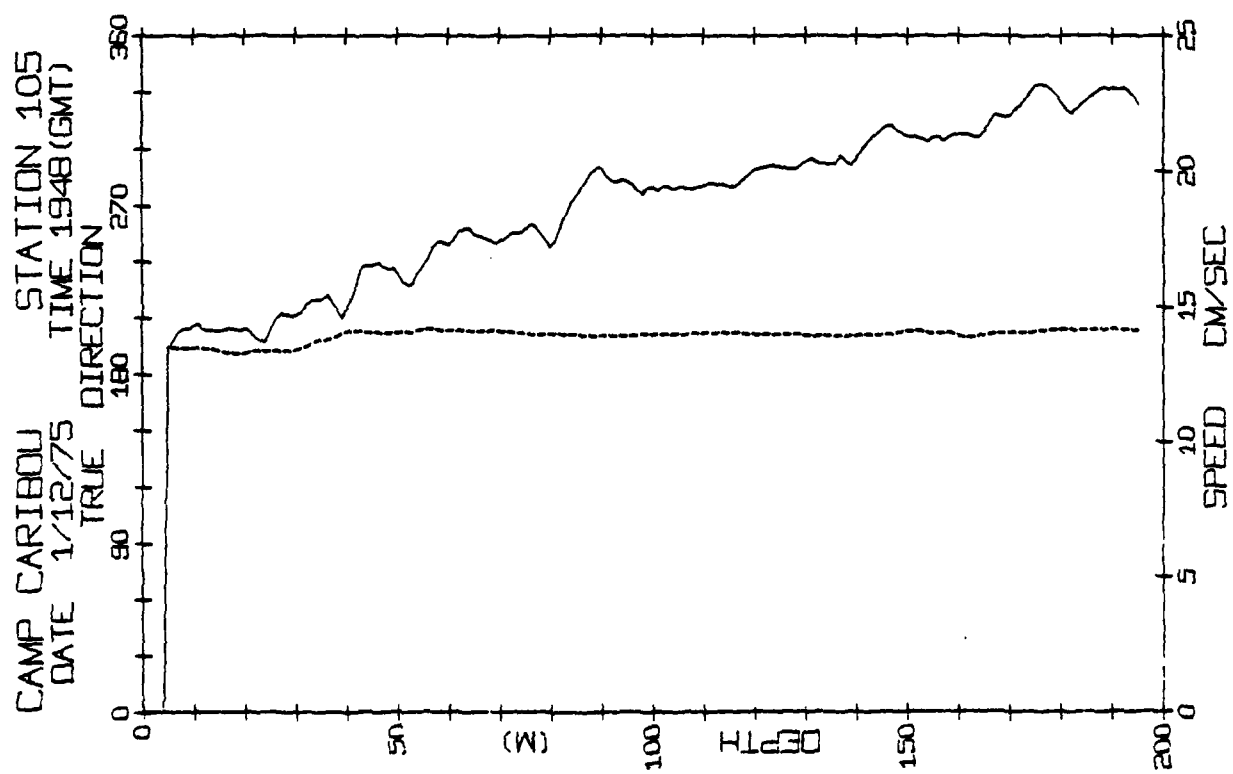
113



CARLHOU STATION 102 (196M.) 29/NOV/75 624 GMT
 LAT= 73.239N LONG= 143.1027W LTER= 4. LGEH= 11.
 NLEVEL= 0.5 EVEL= -10.1 NVER= 0. EVER= 1.

DPT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	
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[illegible]



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CARIHOU STATION 105 (195M.) 1/DEC/75 1948 GMT
DATE= 73.1242N LONG= 142.9918W LTRK= 1. LGEK= 2.
NINVEL= -9.2 EIVEL= -4.1 NVER= 0. EVER= 0.

```

CANIHOU STATION 105 (195M.)
 DATE 73.1242N LONG= 142.9918W
 NINVEL= -9.2 EIVEL= -4.1
 LTRK= 1.
 NVER= 0.
 1/DEC/75

CANIHOU STATION 105 (195M.)
DATE= 73.1242N LONG= 142.9918W
INIVEL= -9.2 EIVEL= -4.1

CANIHOU STATION 105
DATE= 73.1242N LONG= 155.1000E
INIVEL= -9.2 FIVEL=

CANIMOU
LAT= 73.12
NIVEL= -8

CANINE
UNIVERSITY

CANIHOU
LAT= 73.
NIVELE=

CANIHOU ST
DATE 73.124
INVEL -9.

CANIHOU STATI
DATE 73.1242N
UNIVEL -9.2

CANIKOU STATION 1
LAT= 73.1242N LONG
NIVEL= -9.2 EIV

CANIHOU STATION 105
DATE= 73.1242N LONG=
INIVEL= -9.2 FIVEL=

CANIHOU STATION 105
DATE= 73.1242N LONG= 142
NIVEL= -9.2 EIVEL= -

CANIHOU STATION 105 (195
LAT= 73.1242N LONG= 142.99
EIVEL= -9.2 EIVEL= -4.1

CARIBOU STATION 105 (195M.)
 DATE= 73.1242N LONG= 142.9918W
 MINVEL= -9.2 EVEL= -4.1

CANIMOU STATION 105 (195M.)
 LAT= 73.1242N LONG= 142.9918W
 NINVEL= -9.2 EIVEL= -4.1
 LT
 NV

CANIHOU STATION 105 (195M.)
 LAT= 73.1242N LONG= 142.9916W
 NINVEL= -9.2 EIVEL= -4.1
 LTRK= 1
 NVER= 1

CANIMOU STATION 105 (195M.)
 DATE 73.1242N LONG= 142.9918W
 NINVEL= -9.2 EIVEL= -4.1
 LTRK= 1/DEC
 NVER=

CANIHOU STATION 105 (195M.)
 DATE= 73.1242N LONG= 142.9918W
 NINVEL= -9.2 EIVEL= -4.1
 LTRK= 1.
 NVER= 0.
 1/DEC/75

```

CARIBOU STATION 105 (195M.) 1/DEC/75
DATE= 73.1242N LONG= 142.9918W LTRK= 1.
NIVEL= -9.2 EIVEL= -4.1 NUCR= 0. EV

```

CANIKOU STATION 105 (195M.) 1/DEC/75 194
 DATE= 73.1242N LONG= 142.991W LTRK= 1. LGFK= 1.
 MINIVEL= -9.2 EIVEL= -4.1 NVER= 0. EVER=

CANIMOU STATION 105 (195M.) 1/DEC/75 1948 G
 DATE= 73.1242N LONG= 142.991W LTRK= 1. LGKE= 1.
 NINVEL= -9.2 EIVEL= -4.1 NVEN= 0. EVER= 0.

```

CARIBOU STATION 105 (195M.) 1/DEC/75 1948 GMT
DATE= 73.1242N LONG= 142.991W LTRK= 1. LGER= 2.
NINVEL= -9.2 EIVEL= -4.1 NVER= 0. EVER= 0.

```

CANIHOU STATION 105 (195M.) 1/DEC/75 1948 GMT
 DATE= 73.1242N LONG= 142.9918W LTRK= 1. LGFK= 2.
 NINVEL= -9.2 EIVEL= -4.1 NVER= 0. EVR= 0.

CANIMOU STATION 105 (195M.) 1/DEC/75 1948 GMT
 DATE= 73.1242N LONG= 142.9918W LTRK= 1. LGEH= 2.
 NINVEL= -9.2 EIVEL= -4.1 NVER= 0. EVER= 0.

CARIBOU STATION 105 (195M.) 1/DEC/75 1948 GMT
 DATE= 73.1242N LONG= 142.991W LTK= 1. LGK= 2.
 NVELO= -9.2 EVEL= -4.1 NVER= 0. EVER= 0.

[illegible]

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CANIBOU STATION 105 (195M.) 1/DEC/75 1948 GMT
LAT=73.1242N LONG=142.9918W LTTM=1: LGRE=2:
NIVEL=-4.1 NVER=0: EVER=0:
CANIBOU LAT=73.
NIVEL=

```

CANIBOU ST	STATION 105	(195M.)	1/DEC/75	1948 GMT	CANIBOU ST
LATE=73.1242N	LONG=	142.991W	LTTK= 1.	LOGMK= 2.	LATE=73.097
NIVEL=	EIVEL=	-4.1	NVKE= 0.	EVERK= 0.	NIVEL=-7.

```

CANIMOU STATION 105 (195M.)
LAT=73.124N LONG=142.991W
NIVEL=-5.4 NIVEL=-4.1
CANIMOU STATION 106 (195M.)
LAT=73.093N LONG=142.991W
NIVEL=-7.4 NIVEL=-6.0
1/DEC/75 1948 GMT
LTK= 0. AGE= 0.
NVR= 1. EVER= 0.

```

CANIMOU	STATION 105	(195M.)	1/DEC/75	1948	GMT
LATE=73.42M	LONGE=	142.591RM	LTKE=	1.	IGHE=
NIVEL=-4.1	EIVEL=	-4.1	NVKE=	0.	EVKE=
CANIMOU	STATION 1				
LATE=73.0973M	LONGE=	142.591RM	LTKE=	1.	IGHE=
NIVEL=-7.4	EIVEL=	-7.4	NVKE=	0.	EVKE=

CANIMOU	STATION 105	(195M.)	1/DEC/75	1948	GMT
LAT=	73.122N	LT=	1.	1948	GMT
LONG=	-72.2M	LONG=	1.	1948	GMT
ELEV=	142.911M	ELEV=	0.	1948	GMT
WAVE=	-4	WAVE=	0.	1948	GMT

```

CAMIBOU STATION 105 (195M.) 1/DEC/75 1948 GMT
LAT=73.124N LONG=142.951W LTRK= 0. LGCHK= 0.
NVEVL=-5.2 EVEL=-4.1 NVER= 0. EVER= 0.
CAMIBOU STATION 106
LAT=73.093N LONG=143.
NVEVL=-7.4 EVEL=-

```

```

CARBONOU STATION 105      195M.)      1/DEC/75      1948 GMT
142.918W LONGE=          LTRK=          LGHE=          2.
-4.1N  NVELE=          NVRK=          EVR=          0.
CARBONOU STATION 106      (195M.)      1/DEC/75      1948 GMT
143.022W LONGE=          LTRK=          LGHE=          2.
-7.4N  NVELE=          NVRK=          EVR=          0.

```

```

CANIHOU STATION 105      (195M.)      1/DEC/75      1948 GMT      CANIHOU STATION 106      (190M.)
DATE= 73.122M           LONGE= 142.991W           LTRK= 0.           LGN= 2.           DATE= 73.091M           LONG= 143.0291W
ELEV= -4.1M             NMRK= 1.           EVEN= 0.           ELEV= -2.9

```

```

CANIHOU STATION 105      1954.)
LAT= 73.122N      LONG= 142.9918W
ELEV= -9.2      LTRK= 1.  LGEM= 4.
NVEVL= -4.1      NVER= 0.  EVEL= 2.
CANIHOU STATION 106      (190M.)
LAT= 73.0973N      LONG= 143.0291W
ELEV= -7.4      NVEVL= -2.9      NVER= 1.

```

```

CARIBOU STATION 105 (195M.)
LAT=73.122N LONG=142.911W
NVE=4.1
LTC=1.
1/DEC/75 LGHE=0.
1948 GRT EVER=0.
CARIBOU STATION 106 (190M.)
LAT=73.0973N LONG=143.0291W
NVE=-2.9
LTC=-7.4
LTER=
NVER=

```

CANIMOU		STATION 105		(1958.)		1/DEC/75		1948 GMT		CANIMOU		STATION 106		(1900M.)	
LONGE=	73.522M	LONGE=	142.9918W	LTOK=	1.	LTOK=	2.	LAT=	73.0933N	LONGE=	143.0291W	LTOK=	1.	LTOK=	2.
NIVELE=	-7.4	NIVELE=	-7.4	NIVELE=	0.	NIVELE=	0.	NIVELE=	-7.4	NIVELE=	-7.4	NIVELE=	0.	NIVELE=	-7.9

```

CANIBOU STATION 105 (195M.)
LAT=73.242N LONG=143.1291W
ELEV=-5.4 MVEL=-4.1
LTK=1. LGEM=1.
NVER=0. EVER=2.
1/DEC/75 1948 GMT
CANIBOU STATION 106 (190M.)
LAT=73.0973N LONG=143.1291W
ELEV=-7.4 MVEL=-0.
LTK=0. LGEM=0.
NVER=0. EVER=0.
2/DEC/75

```

```

CANIMHOU STATION 105 (195M.)
LAT= 73.42N LONG= 142.91W
NVE= -4.1
LTC= 1.
LGE= 0.
EVER= 0.
1/DEC/75 1948 GMT
CANIMHOU STATION 106 (190M.)
LAT= 73.0973N LONG= 143.0291W
NVE= -7.4
LTC= 2.
LGE= 0.
EVER= 0.
2/DEC/75 1948 GMT

```

```

CANIHOU STATION 105 (195M.)
LAT= 73.32N LONG= 142.991W
ELEV= -9.2M
1/DEC/75 LTCK= 1. LGEM= 2.
NVEK= 0. EVEN= 0.

CANIHOU STATION 106 (190M.)
LAT= 73.097N LONG= 143.029W
ELEV= -7.4M
2/DEC/75 LTCK= 0. LGEM= 0.
NVEK= 0. EVEN= 0.

```

CANIHOU STATION 105		(195M.)		1/DEC/75		1948 GMT	
DATE=	73.12.2	LONGE=	142.991W	LTEN=	1.	LGEM=	0.
NAT=	-4.2	EIVEL=	-4.1	NVER=	0.	EVER=	0.

CANIMOU	STATION 105	(195M.)	1/DEC/75	1948 GMT
LAT=	73.42N	LONG=	142.91W	LTRF= 0.
ELEV=	-4.1	NVEI=	-4.1	LGHE= 1.
				EVER= 2.

CANIMOU	STATION 106	(190M.)	2/DEC/75	636 GMT
LAT=	73.97N	LONG=	143.02W	LTRF= 0.
ELEV=	-7.4	NVEI=	-7.4	LGHE= 0.
				EVER= 0.

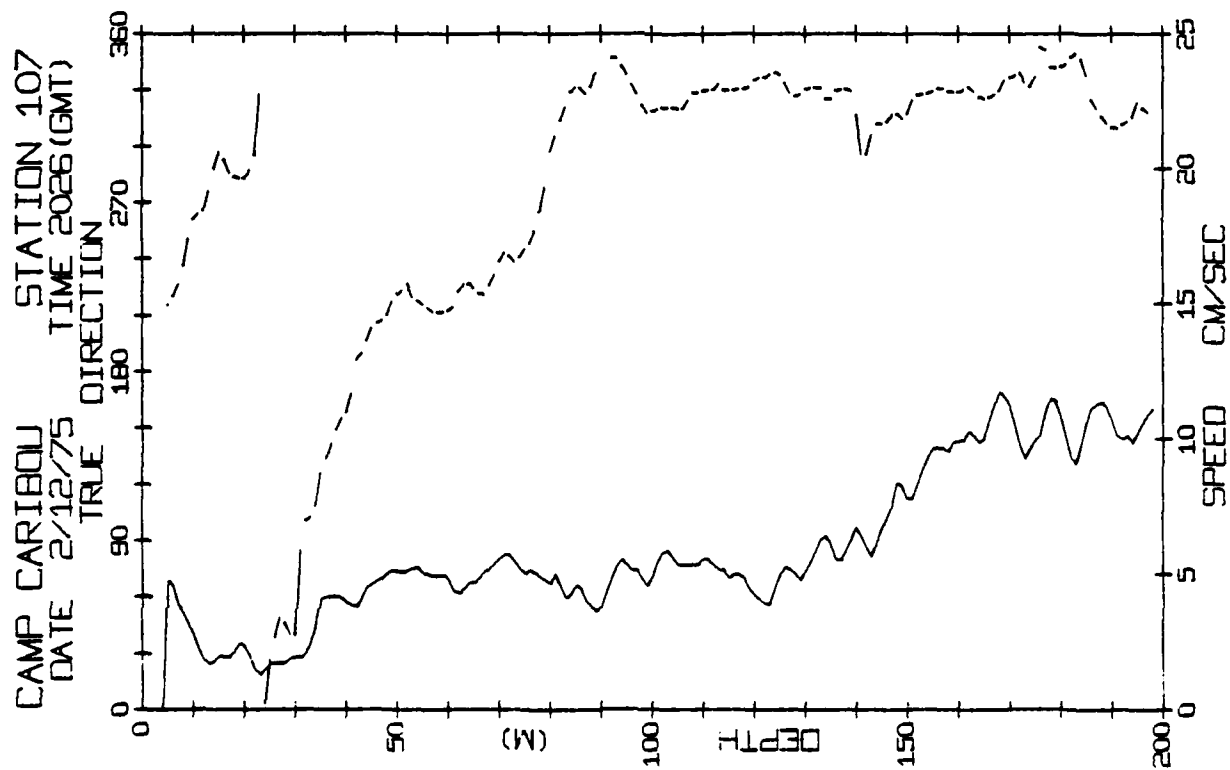
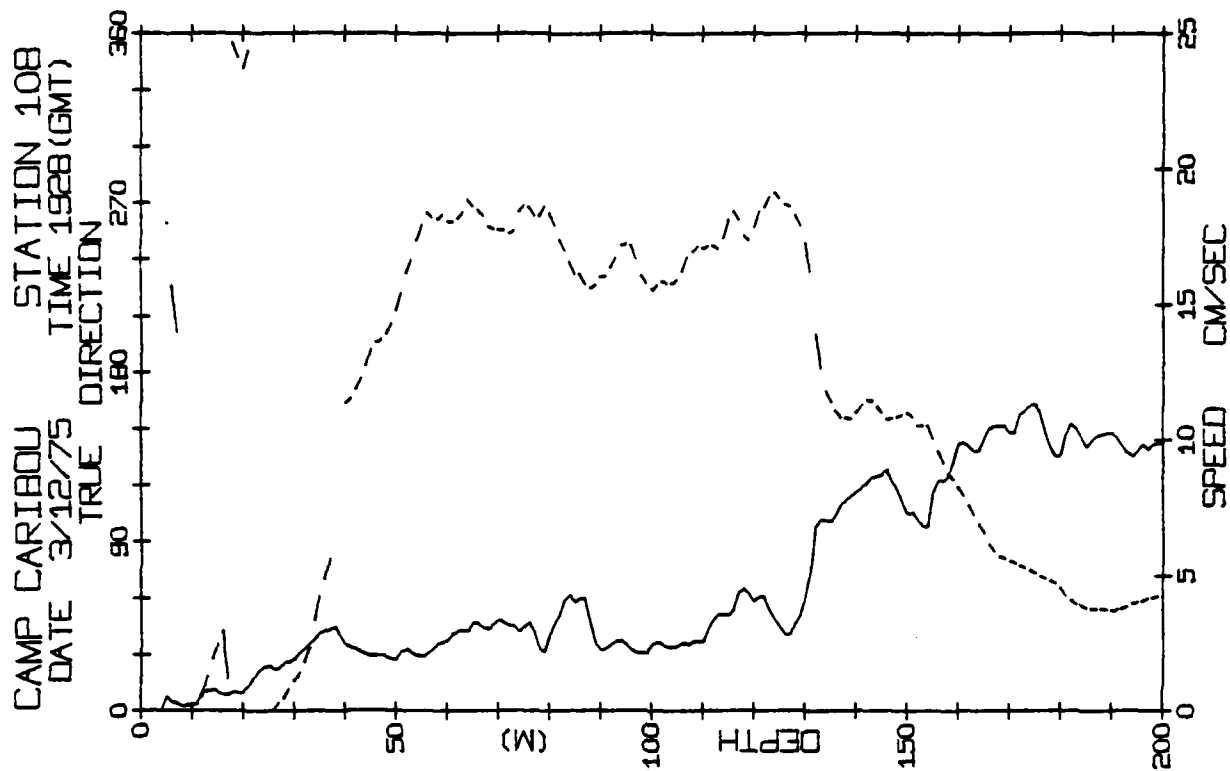
CANIBOU	STATION 105	(195M.)	1/DEC/75	1948 GMT	
	LAT=73.122	LONG=142.991W	LTK=1.	LGEH=0.	
	ELEV=-4.1	NVEH=0.		EVEN=0.	
CANIBOU	STATION 106	(190M.)	2/DEC/75	636 GMT	
	LAT=73.097N	LONG=143.029W	LTK=0.	LGEH=0.	
	ELEV=-7.4	NVEH=-2.9		EVEN=0.	

```

CARIBOU STATION 105 (195M.)
LAT= 73.42N LONG= 142.991W
NIVEL= -5.2M EVEL= -4.1
LTK= 1. LGEM= 0.
NVER= 0. EVEM= 0.
1/DEC/75 1948 GMT
CARIBOU STATION 106 (190M.)
LAT= 73.093N LONG= 143.0291W
NIVEL= -7.4 EVEL= -2.9
LTK= 1. LGEM= 0.
NVER= 0. EVEM= 0.
2/DEC/75 1948 GMT

```

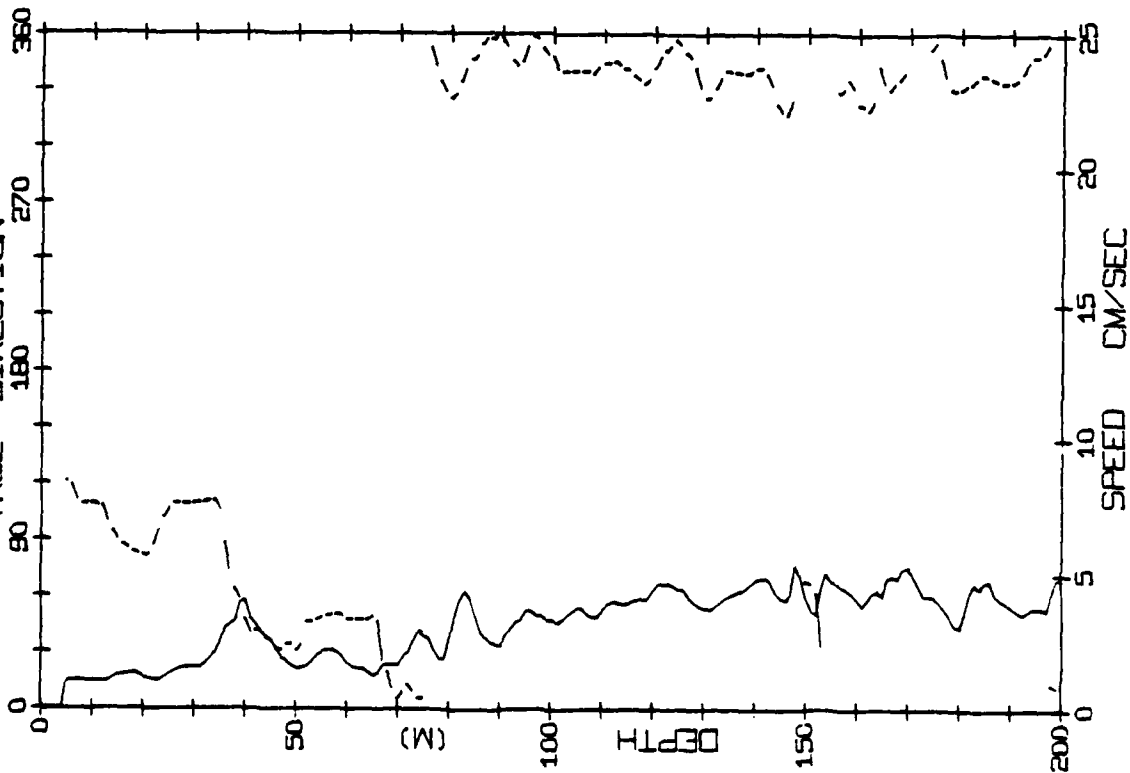
[illegible][illegible][illegible]



CAMP CARIBOU
DATE 3/12/75

STATION 109
TIME 2052(GMT)

TRUE DIRECTION

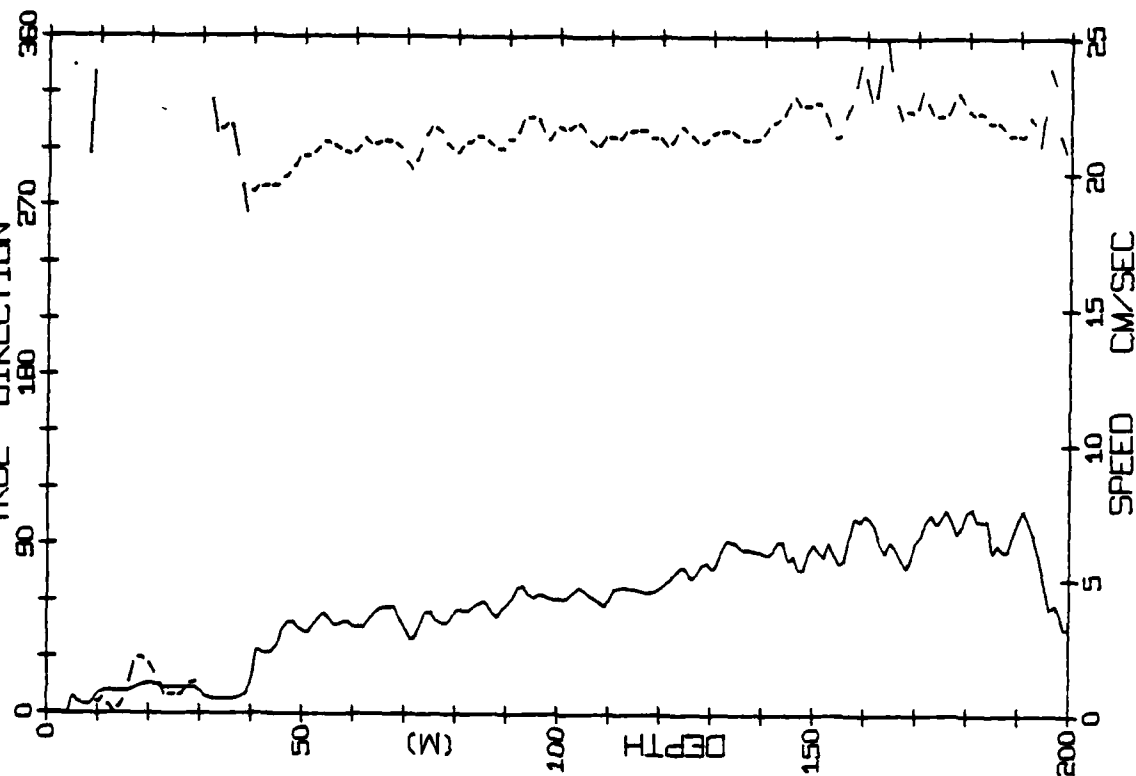


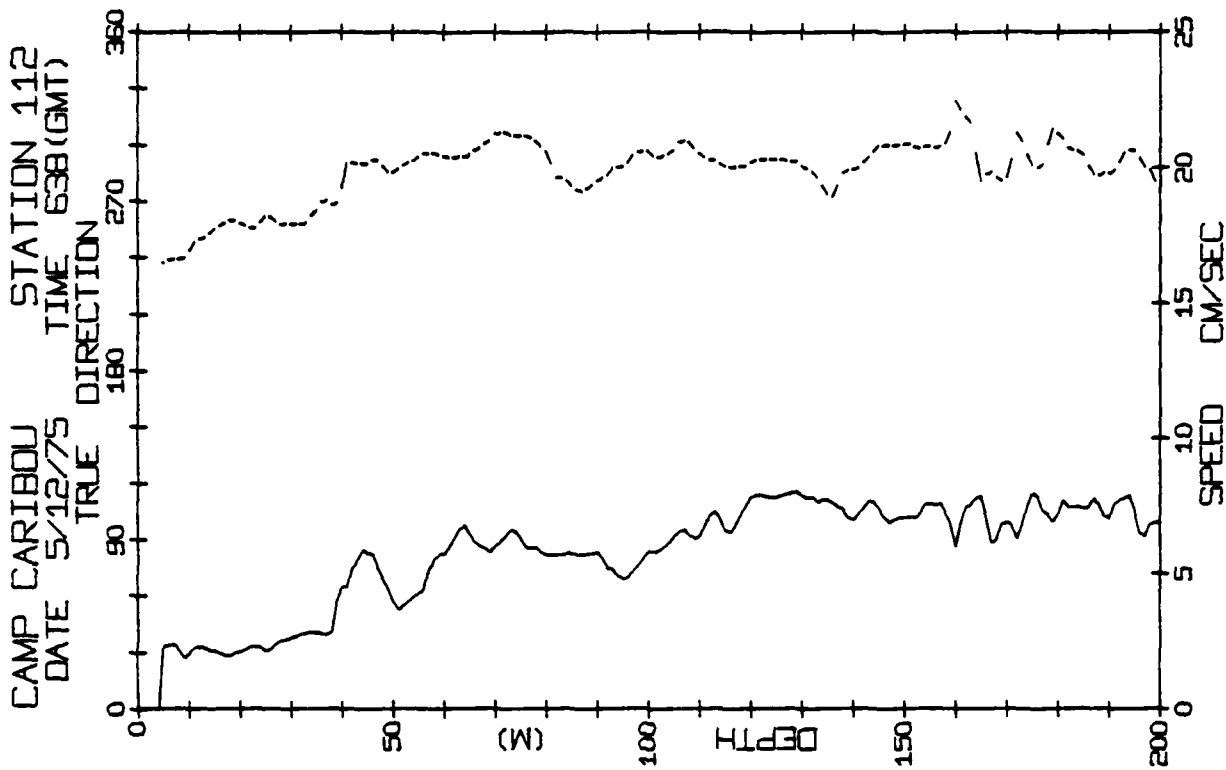
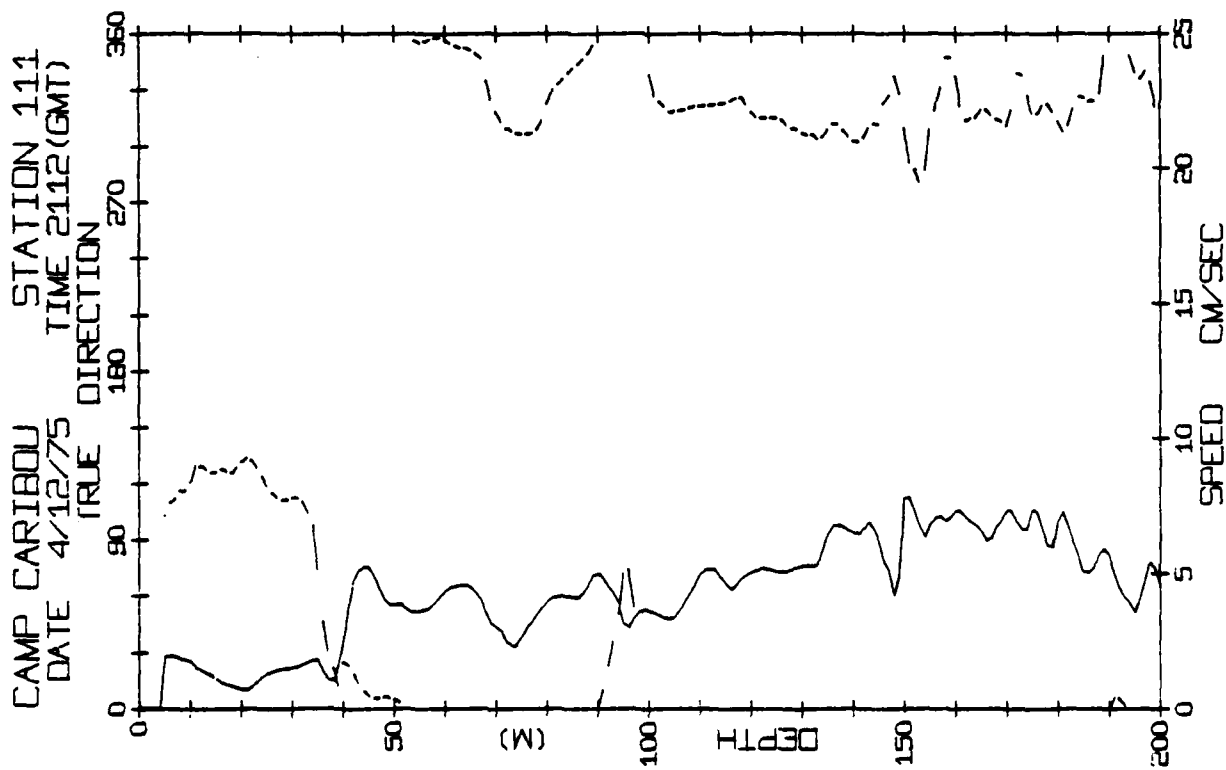
120

CAMP CARIBOU
DATE 4/12/75

STATION 110
TIME 625(GMT)

TRUE DIRECTION





CARIBOU STATION 112 (200M.)
 LATE 73.0558N LONGE 142.9320W
 NIVEL= -0.2 LTEM= 1. LGEN= 2.
 DPT= 0. SPD= 0. DRN= 0.

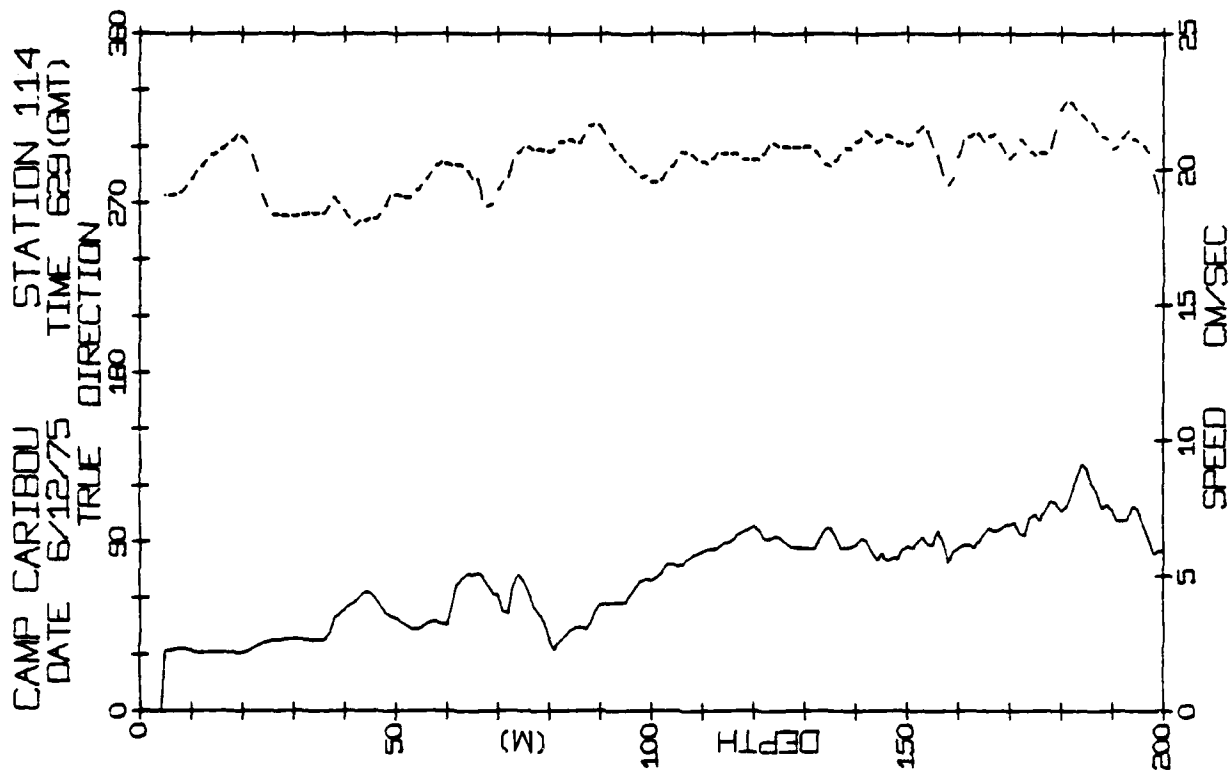
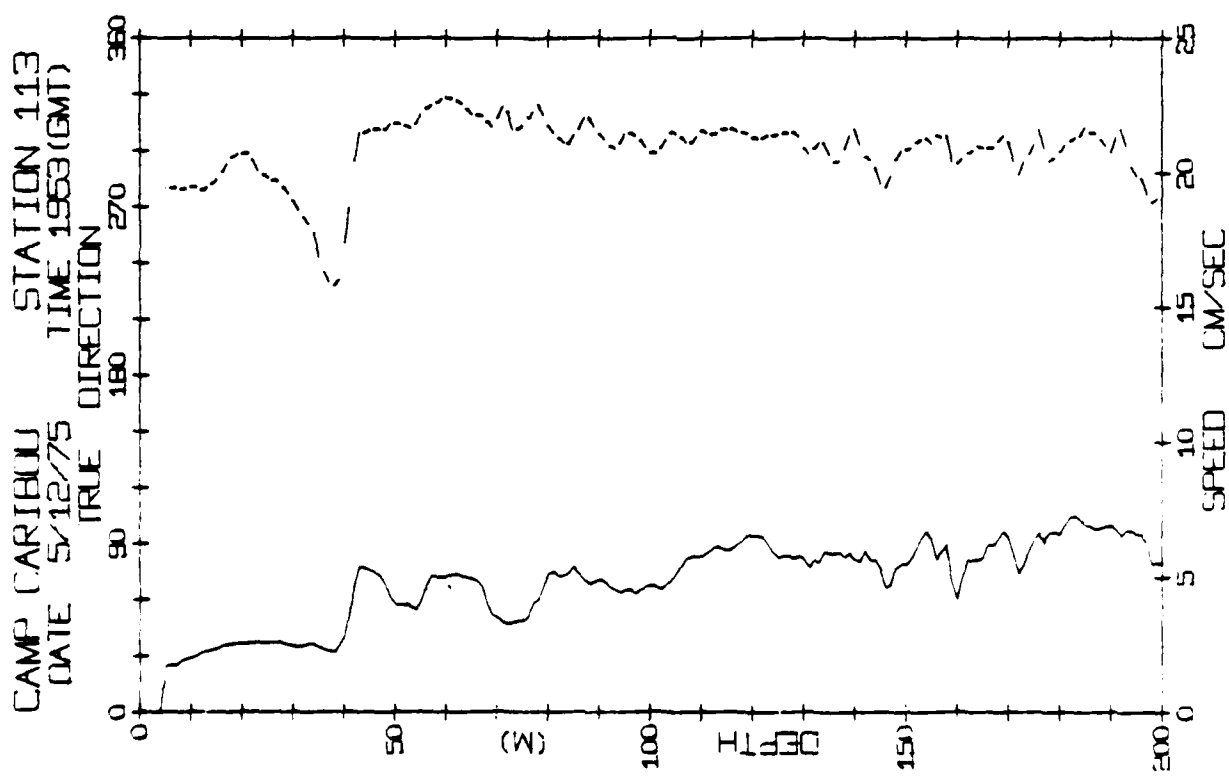
CARIBOU STATION 111 (200M.)
 LATE 73.0563N LONGE 142.9429W
 NIVEL= 0.0 LTEM= 1. LGEN= 2.
 DPT= 0. SPD= 0. DRN= 0.

CARIBOU STATION 112 (200M.)
 LATE 73.0558N LONGE 142.9320W
 NIVEL= -0.2 LTEM= 1. LGEN= 2.
 DPT= 0. SPD= 0. DRN= 0.

CARIBOU STATION 112 (200M.)
 LATE 73.0558N LONGE 142.9320W
 NIVEL= -0.2 LTEM= 1. LGEN= 2.
 DPT= 0. SPD= 0. DRN= 0.

CARIBOU STATION 111 (200M.)
 LATE 73.0563N LONGE 142.9429W
 NIVEL= 0.0 LTEM= 1. LGEN= 2.
 DPT= 0. SPD= 0. DRN= 0.

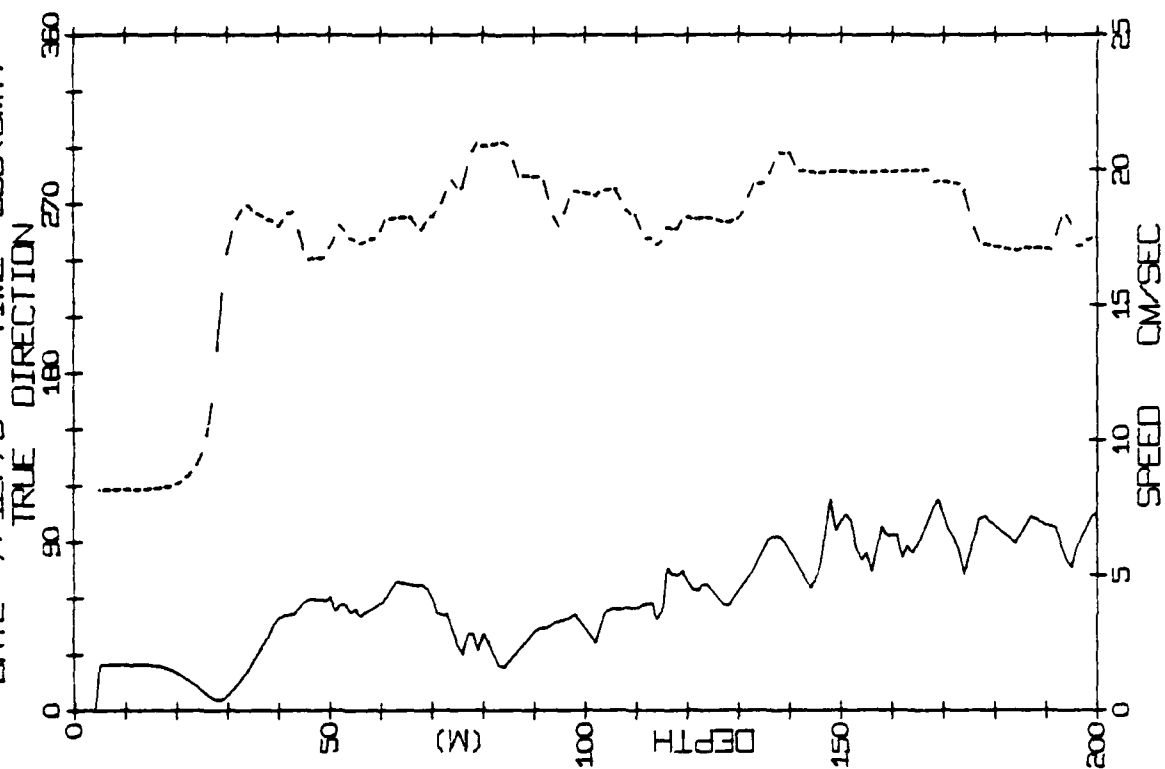
CARIBOU STATION 112 (200M.)
 LATE 73.0558N LONGE 142.9320W
 NIVEL= -0.2 LTEM= 1. LGEN= 2.
 DPT= 0. SPD= 0. DRN= 0.



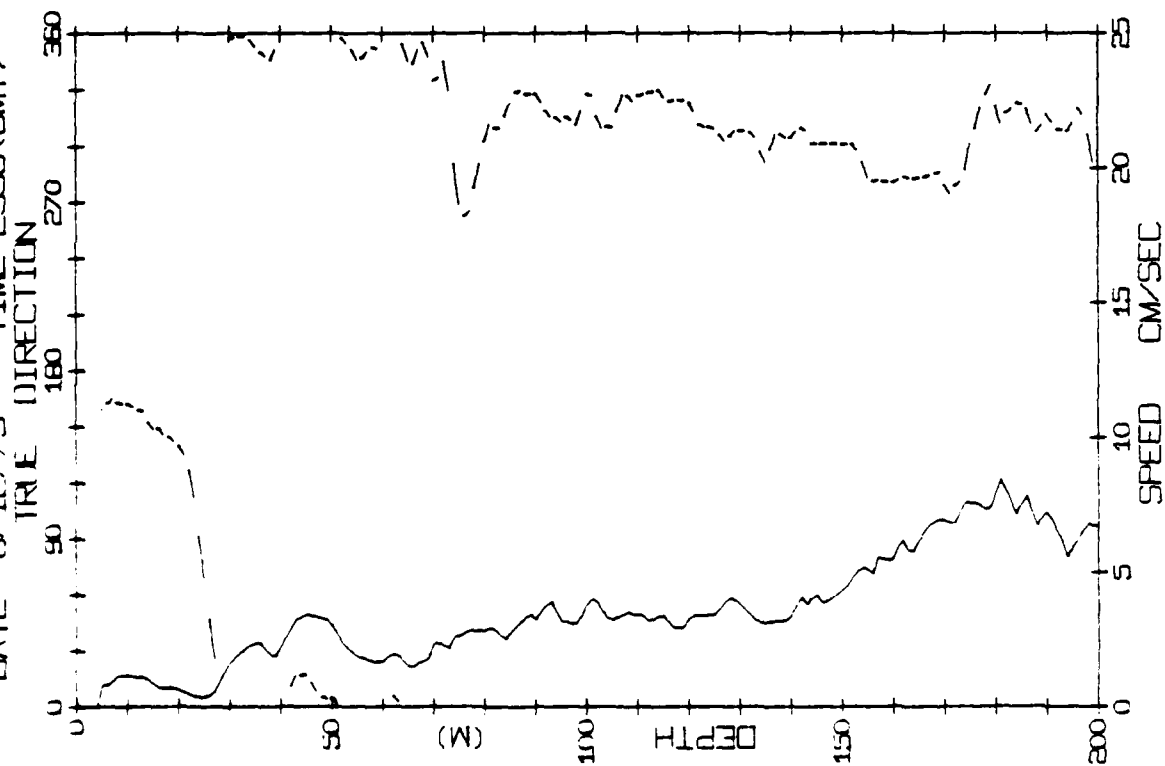
CAMBRIDGE STATION 113 (200M.)
LAT: 73.0550N LONG: 142.9323W
ELEV: 0.3 ELEV: -0.5

[illegible]

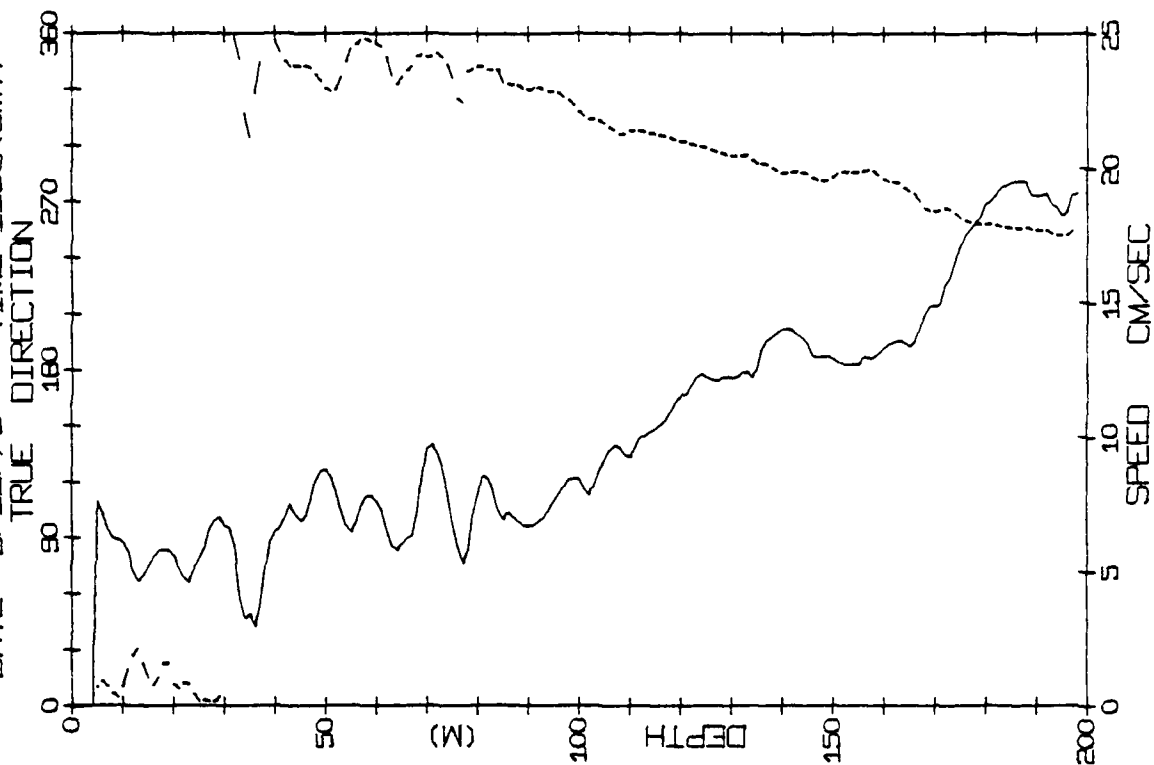
CAMP CARIBOU STATION 116
DATE 7/12/75 TIME 559(GMT)



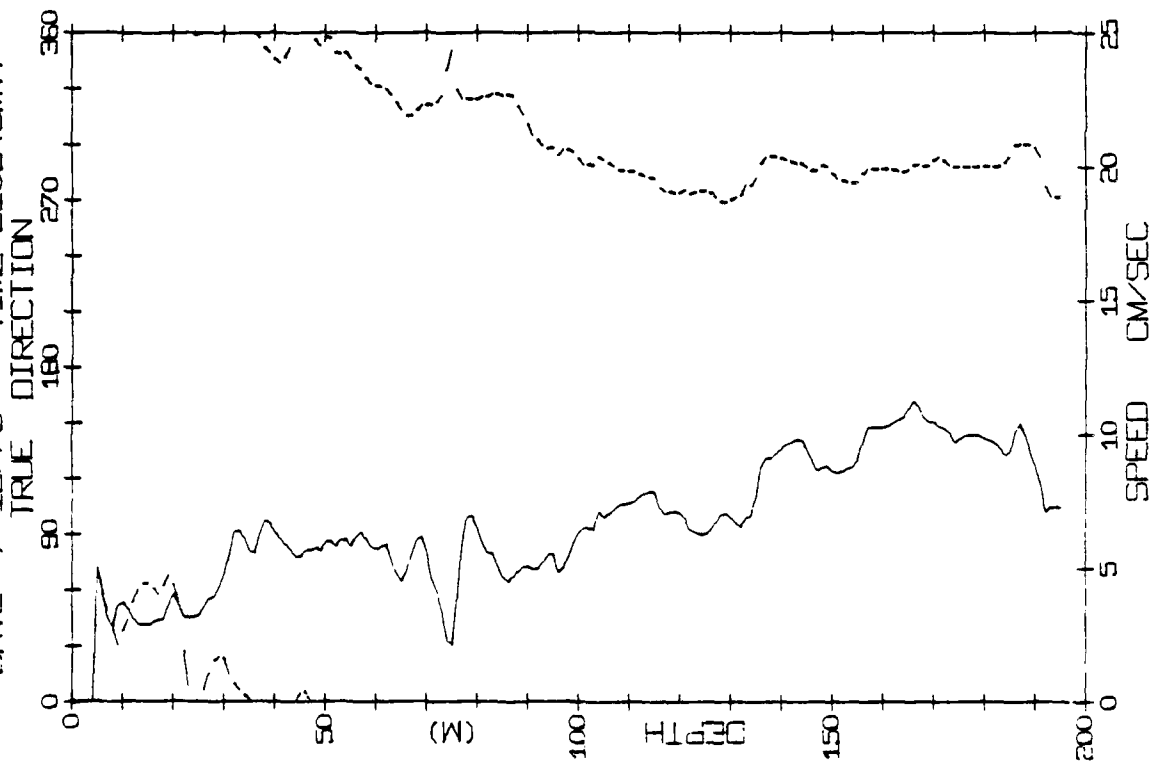
CAMP CARIBOU STATION 115
DATE 6/12/75 TIME 2338(GMT)



CAMP CARIBOU STATION 119
DATE 8/12/75 TIME 1153(GMT)



CAMP CARIBOU STATION 117
DATE 7/12/75 TIME 2108(GMT)



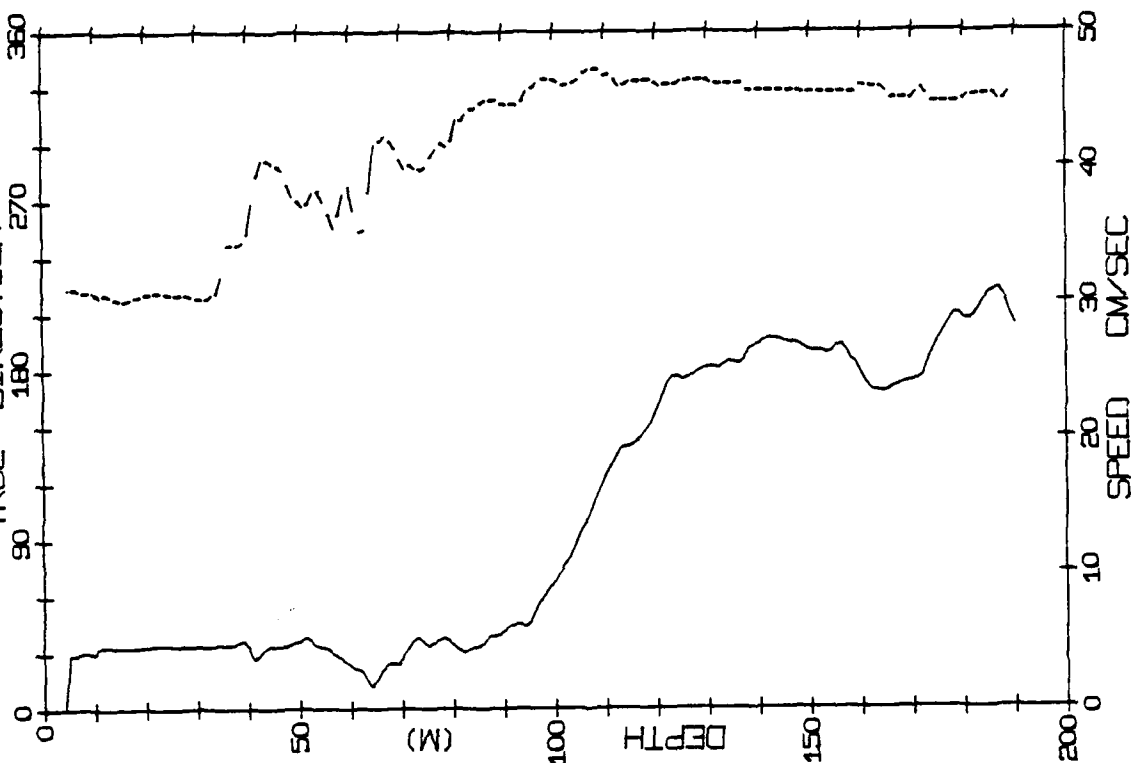
CARIBOU STATION 119 (198M.)
 LAT= 73.1376N LONG= 142.7970W
 NIVEL= 10.6 ELEV= 7.6
 8/DEC/75 LTER= 1.
 1153 GMT LGER= 0.
 EVER= 0.

DPT	SPD	DRN	DPT	SPD	DRN
0	1	1	1	1	1
1	2	2	2	2	2
2	3	3	3	3	3
3	4	4	4	4	4
4	5	5	5	5	5
5	6	6	6	6	6
6	7	7	7	7	7
7	8	8	8	8	8
8	9	9	9	9	9
9	0	0	0	0	0
10	1	1	1	1	1
11	2	2	2	2	2
12	3	3	3	3	3
13	4	4	4	4	4
14	5	5	5	5	5
15	6	6	6	6	6
16	7	7	7	7	7
17	8	8	8	8	8
18	9	9	9	9	9
19	0	0	0	0	0
20	1	1	1	1	1
21	2	2	2	2	2
22	3	3	3	3	3
23	4	4	4	4	4
24	5	5	5	5	5
25	6	6	6	6	6
26	7	7	7	7	7
27	8	8	8	8	8
28	9	9	9	9	9
29	0	0	0	0	0
30	1	1	1	1	1
31	2	2	2	2	2
32	3	3	3	3	3
33	4	4	4	4	4
34	5	5	5	5	5
35	6	6	6	6	6
36	7	7	7	7	7
37	8	8	8	8	8
38	9	9	9	9	9
39	0	0	0	0	0
40	1	1	1	1	1
41	2	2	2	2	2
42	3	3	3	3	3
43	4	4	4	4	4
44	5	5	5	5	5
45	6	6	6	6	6
46	7	7	7	7	7
47	8	8	8	8	8
48	9	9	9	9	9
49	0	0	0	0	0
50	1	1	1	1	1
51	2	2	2	2	2
52	3	3	3	3	3
53	4	4	4	4	4
54	5	5	5	5	5
55	6	6	6	6	6
56	7	7	7	7	7
57	8	8	8	8	8
58	9	9	9	9	9
59	0	0	0	0	0
60	1	1	1	1	1
61	2	2	2	2	2
62	3	3	3	3	3
63	4	4	4	4	4
64	5	5	5	5	5
65	6	6	6	6	6
66	7	7	7	7	7
67	8	8	8	8	8
68	9	9	9	9	9
69	0	0	0	0	0
70	1	1	1	1	1
71	2	2	2	2	2
72	3	3	3	3	3
73	4	4	4	4	4
74	5	5	5	5	5
75	6	6	6	6	6
76	7	7	7	7	7
77	8	8	8	8	8
78	9	9	9	9	9
79	0	0	0	0	0
80	1	1	1	1	1
81	2	2	2	2	2
82	3	3	3	3	3
83	4	4	4	4	4
84	5	5	5	5	5
85	6	6	6	6	6
86	7	7	7	7	7
87	8	8	8	8	8
88	9	9	9	9	9
89	0	0	0	0	0
90	1	1	1	1	1
91	2	2	2	2	2
92	3	3	3	3	3
93	4	4	4	4	4
94	5	5	5	5	5
95	6	6	6	6	6
96	7	7	7	7	7
97	8	8	8	8	8
98	9	9	9	9	9
99	0	0	0	0	0

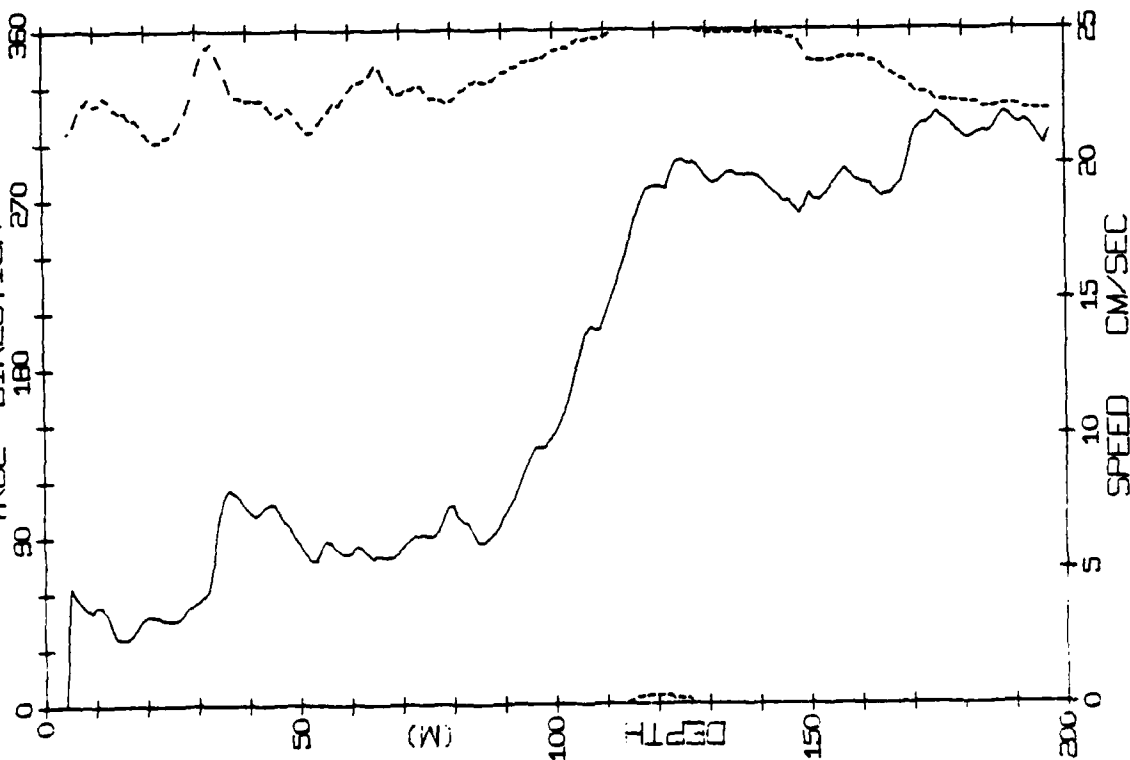
CARIBOU STATION 117 (195M.)
 LAT= 73.0772N LONG= 142.8002W
 NIVEL= 11.1 ELEV= 6.7
 7/DEC/75 LTER= 1.
 2108 GMT LGER= 2.
 EVER= 1.

DPT	SPD	DRN	DPT	SPD	DRN
0	1	1	1	1	1
1	2	2	2	2	2
2	3	3	3	3	3
3	4	4	4	4	4
4	5	5	5	5	5
5	6	6	6	6	6
6	7	7	7	7	7
7	8	8	8	8	8
8	9	9	9	9	9
9	0	0	0	0	0
10	1	1	1	1	1
11	2	2	2	2	2
12	3	3	3	3	3
13	4	4	4	4	4
14	5	5	5	5	5
15	6	6	6	6	6
16	7	7	7	7	7
17	8	8	8	8	8
18	9	9	9	9	9
19	0	0	0	0	0
20	1	1	1	1	1
21	2	2	2	2	2
22	3	3	3	3	3
23	4	4	4	4	4
24	5	5	5	5	5
25	6	6	6	6	6
26	7	7	7	7	7
27	8	8	8	8	8
28	9	9	9	9	9
29	0	0	0	0	0
30	1	1	1	1	1
31	2	2	2	2	2
32	3	3	3	3	3
33	4	4	4	4	4
34	5	5	5	5	5
35	6	6	6	6	6
36	7	7	7	7	7
37	8	8	8	8	8
38	9	9	9	9	9
39	0	0	0	0	0
40	1	1	1	1	1
41	2	2	2	2	2
42	3	3	3	3	3
43	4	4	4	4	4
44	5	5	5	5	5
45	6	6	6	6	6
46	7	7	7	7	7
47	8	8	8	8	8
48	9	9	9	9	9
49	0	0	0	0	0
50	1	1	1	1	1
51	2	2	2	2	2
52	3	3	3	3	3
53	4	4	4	4	4
54	5	5	5	5	5
55	6	6	6	6	6
56	7	7	7	7	7
57	8	8	8	8	8
58	9	9	9	9	9
59	0	0	0	0	0
60	1	1	1	1	1
61	2	2	2	2	2
62	3	3	3	3	3
63	4	4	4	4	4
64	5	5	5	5	5
65	6	6	6	6	6
66	7	7	7	7	7
67	8	8	8	8	8
68	9	9	9	9	9
69	0	0	0	0	0
70	1	1	1	1	1
71	2	2	2	2	2
72	3	3	3	3	3
73	4	4	4	4	4
74	5	5	5	5	5
75	6	6	6	6	6
76	7	7	7	7	7
77	8	8	8	8	8
78	9	9	9	9	9
79	0	0	0	0	0
80	1	1	1	1	1
81	2	2	2	2	2
82	3	3	3	3	3
83	4	4	4	4	4
84	5	5	5	5	5
85	6	6	6	6	6
86	7	7	7	7	7
87	8	8	8	8	8
88	9	9	9	9	9
89	0	0	0	0	0
90	1	1	1	1	1
91	2	2	2	2	2
92	3	3	3	3	3
93	4	4	4	4	4
94	5	5	5	5	5
95	6	6	6	6	6
96	7	7	7	7	7
97	8	8	8	8	8
98	9	9	9	9	9
99	0	0	0	0	0

CAMP CARIBOU STATION 122
 DATE 9/12/75 TIME 813(GMT)
 TRUE DIRECTION



CAMP CARIBOU STATION 120
 DATE 8/12/75 TIME 2123(GMT)
 TRUE DIRECTION

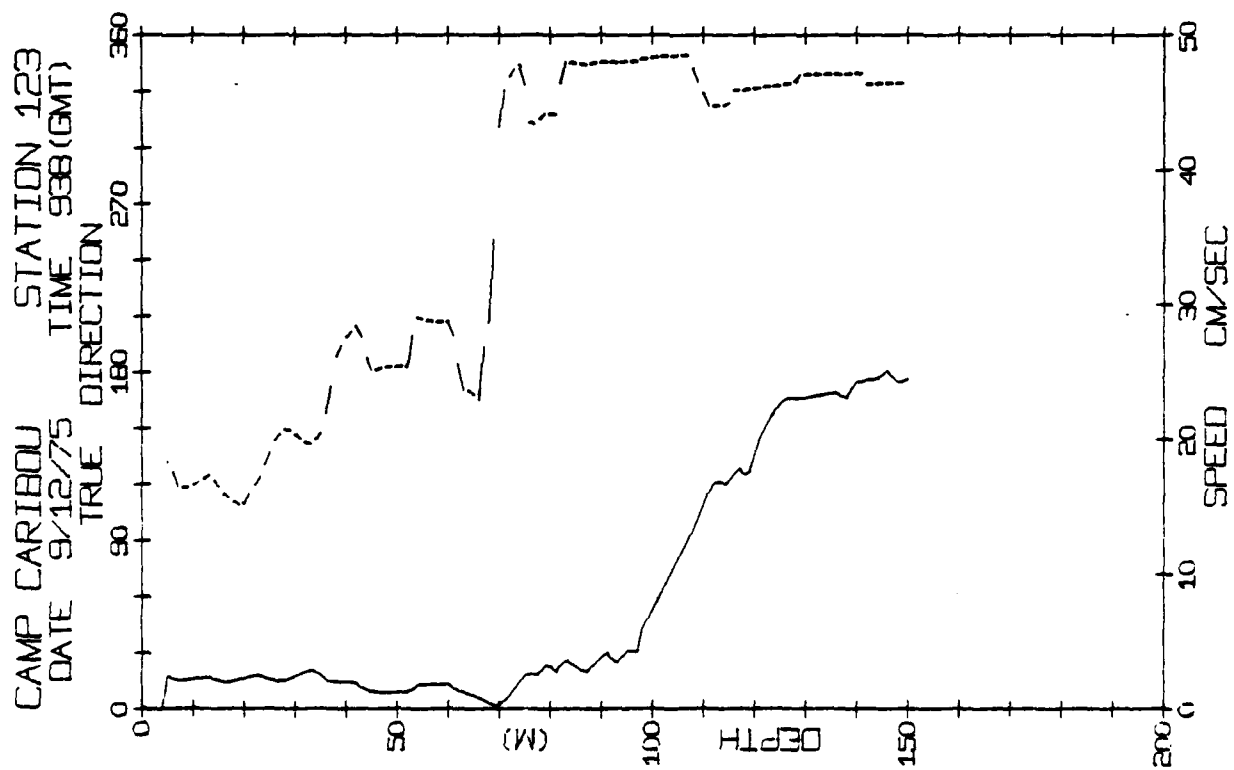
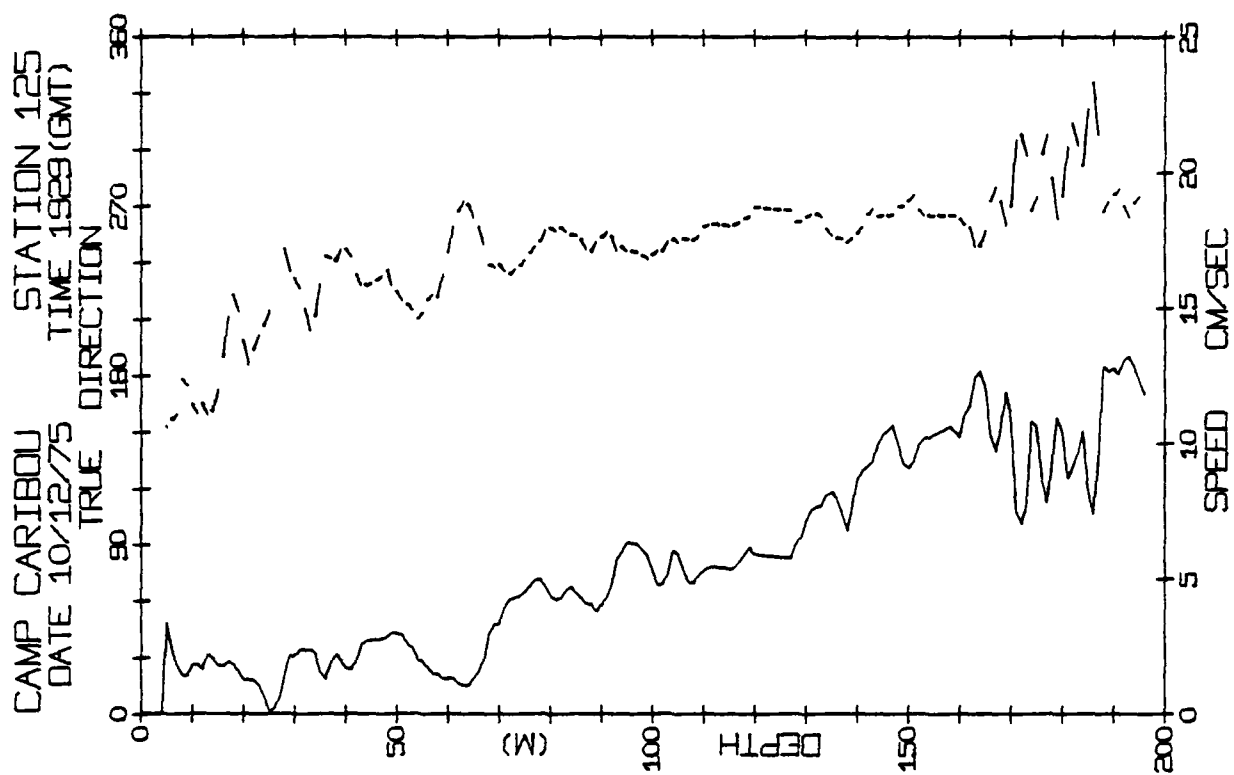


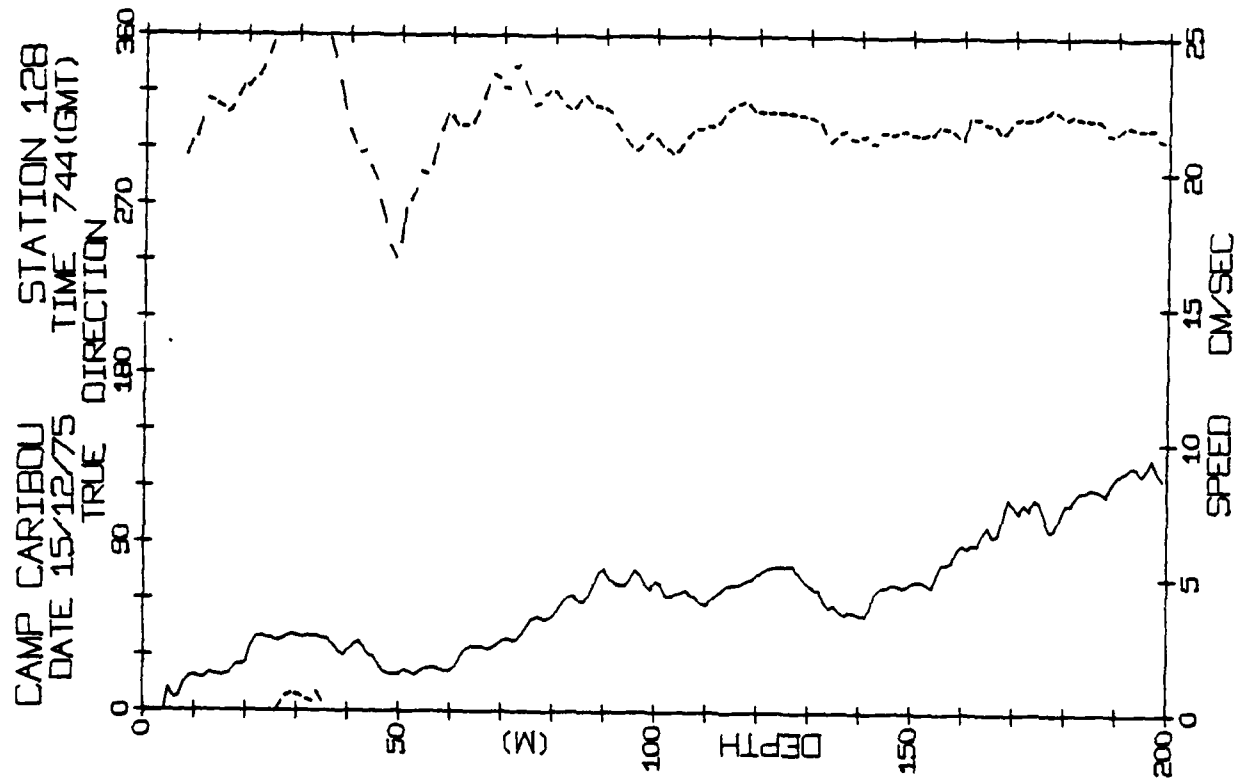
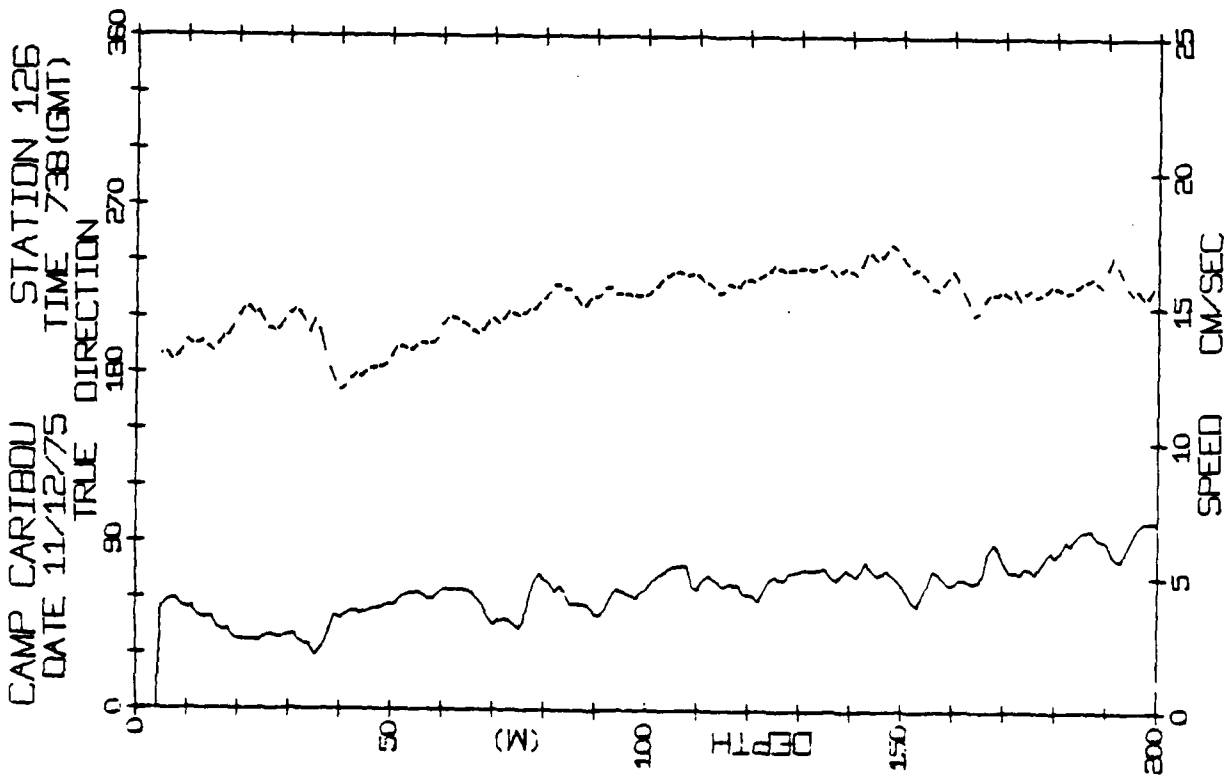
```

CARIBOU STATION 120 (197M.) 8/DEC/75 2123 GMT
LAT= 73.1574N LONG= 142.9987W LTRN= 1. LGRN= 2.
NVEL= 1.2 EVEL= -.9 NVFN= 0. EVFN= 0.

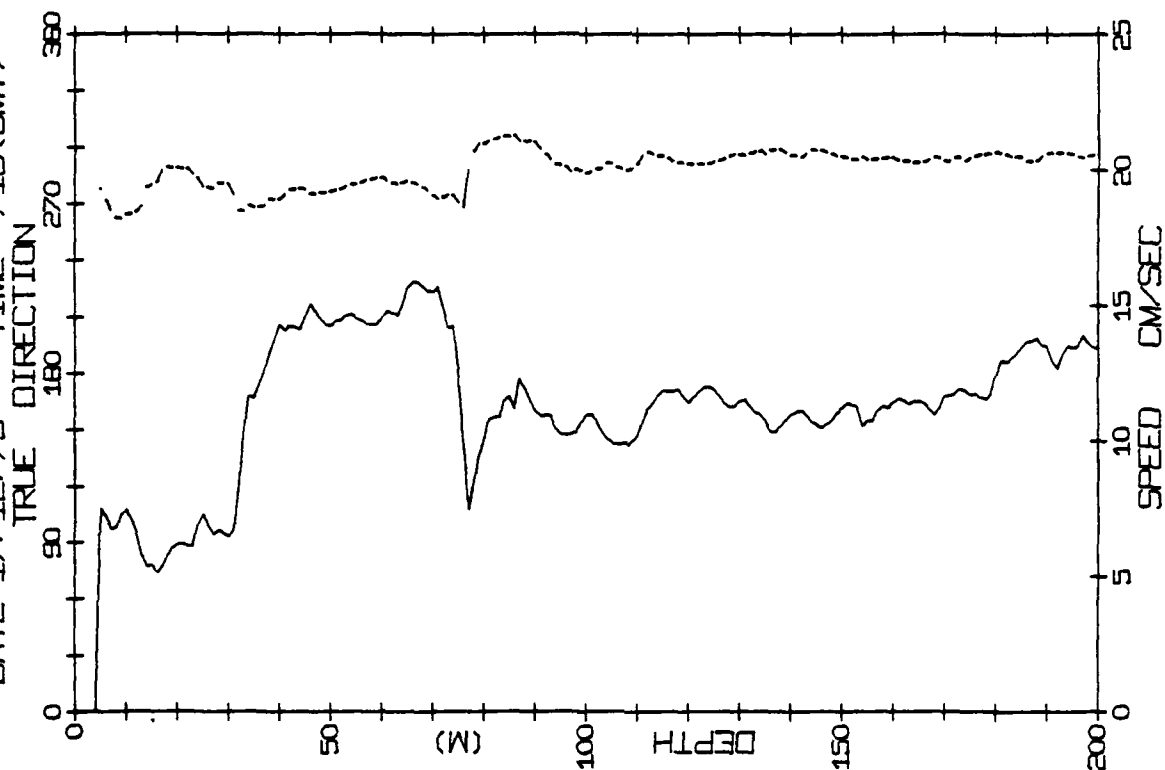
```

[illegible]

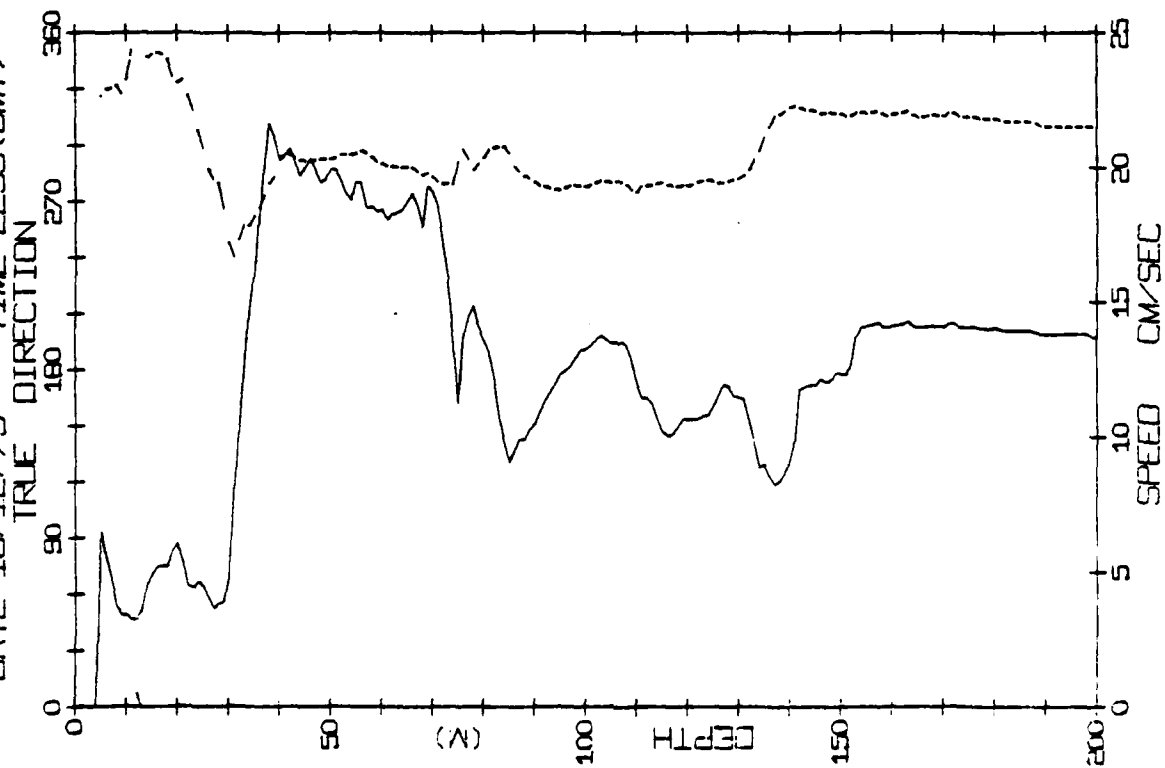




CAMP CARIBOU STATION 131
DATE 17/12/75 TIME 719(GMT)



CAMP CARIBOU STATION 130
DATE 16/12/75 TIME 2238(GMT)



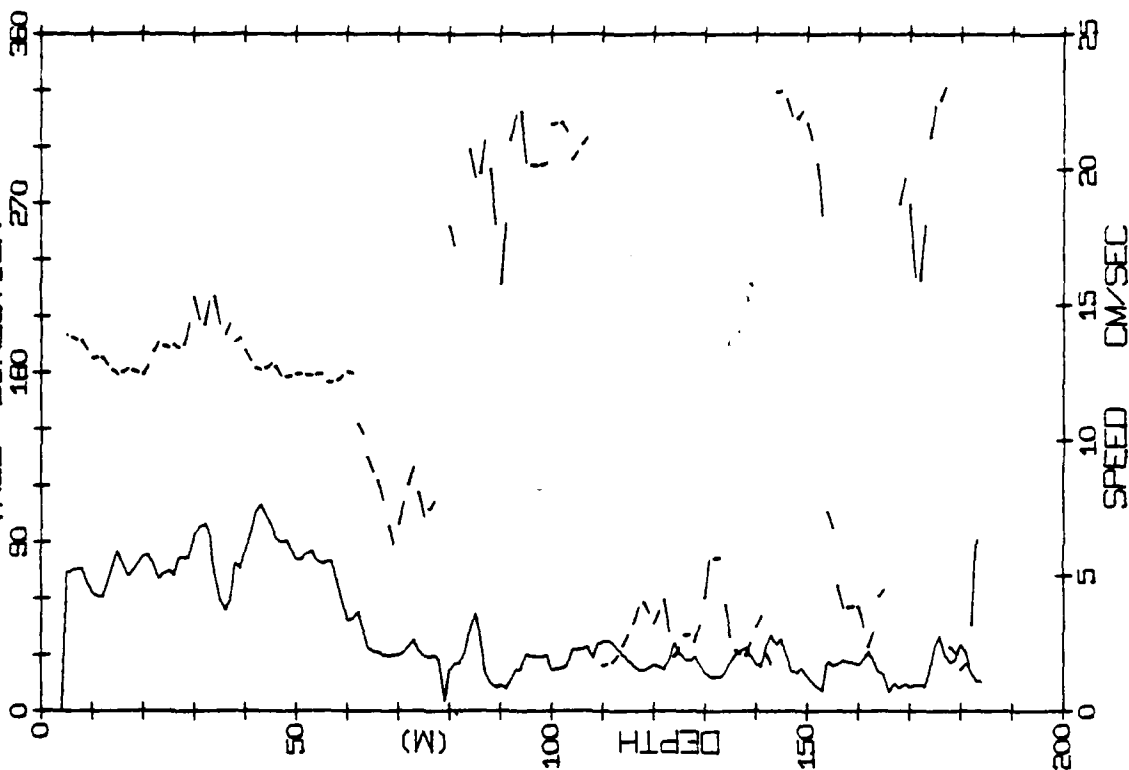
CARIBOU STATION 131 (200M.) 17/DEC/75 19 GMT
 LAT=73.151N LONG=143.218W LTER= 0.
 NLEVEL=-15.1 NVER= 0.
 LGEN= 2.
 EVEN= 0.

CARIBOU STATION 130 (200M.) 16/DEC/75 2233 GMT
 LAT=73.1356N LONG=141.095W LTER= 0.
 NLEVEL=-11.8 NVER= 0.
 LGEN= 0.
 EVEN= 0.

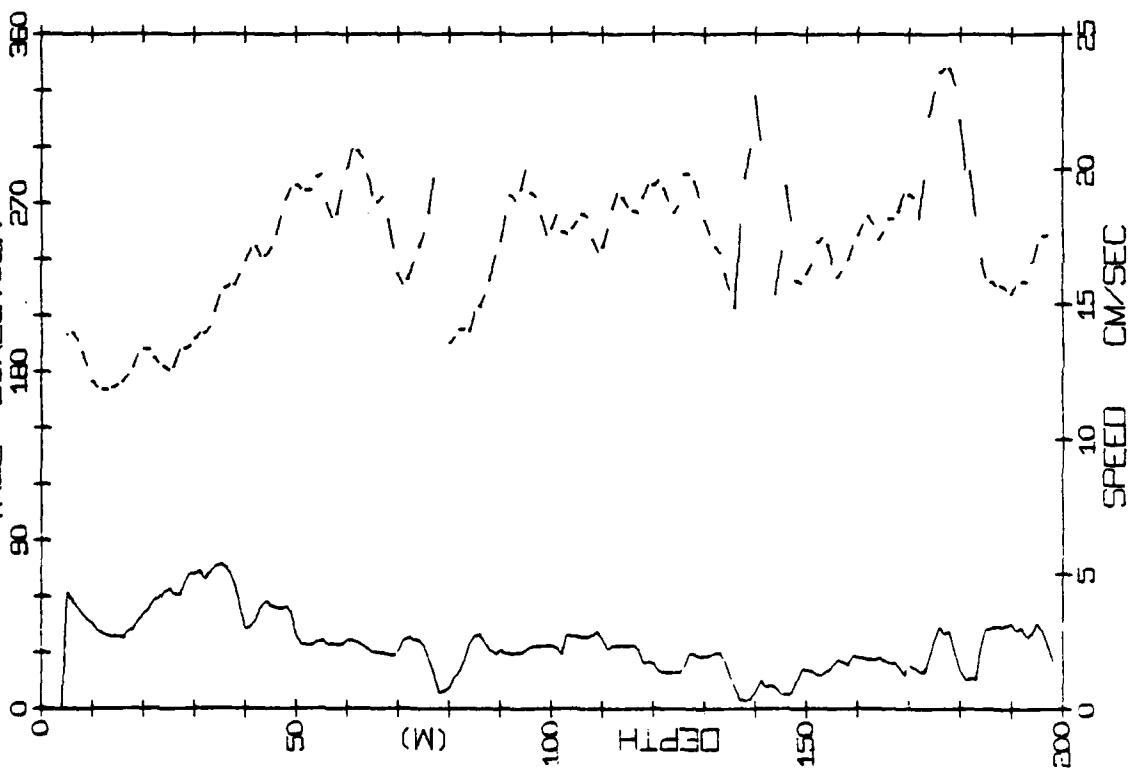
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2	0	0	2	0	0
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4	0	0	4	0	0
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6	0	0	6	0	0
7	0	0	7	0	0
8	0	0	8	0	0
9	0	0	9	0	0
10	0	0	10	0	0
11	0	0	11	0	0
12	0	0	12	0	0
13	0	0	13	0	0
14	0	0	14	0	0
15	0	0	15	0	0
16	0	0	16	0	0
17	0	0	17	0	0
18	0	0	18	0	0
19	0	0	19	0	0
20	0	0	20	0	0
21	0	0	21	0	0
22	0	0	22	0	0
23	0	0	23	0	0
24	0	0	24	0	0
25	0	0	25	0	0
26	0	0	26	0	0
27	0	0	27	0	0
28	0	0	28	0	0
29	0	0	29	0	0
30	0	0	30	0	0
31	0	0	31	0	0
32	0	0	32	0	0
33	0	0	33	0	0
34	0	0	34	0	0
35	0	0	35	0	0
36	0	0	36	0	0
37	0	0	37	0	0
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40	0	0	40	0	0
41	0	0	41	0	0
42	0	0	42	0	0
43	0	0	43	0	0
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45	0	0	45	0	0
46	0	0	46	0	0
47	0	0	47	0	0
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69	0	0	69	0	0
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72	0	0	72	0	0
73	0	0	73	0	0
74	0	0	74	0	0
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76	0	0	76	0	0
77	0	0	77	0	0
78	0	0	78	0	0
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81	0	0	81	0	0
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86	0	0	86	0	0
87	0	0	87	0	0
88	0	0	88	0	0
89	0	0	89	0	0
90	0	0	90	0	0
91	0	0	91	0	0
92	0	0	92	0	0
93	0	0	93	0	0
94	0	0	94	0	0
95	0	0	95	0	0
96	0	0	96	0	0
97	0	0	97	0	0
98	0	0	98	0	0
99	0	0	99	0	0
100	0	0	100	0	0

DPT	SPD	DNM	DPT	SPD	DNM
0	0	0	0	0	0
1	0	0	1	0	0
2	0	0	2	0	0
3	0	0	3	0	0
4	0	0	4	0	0
5	0	0	5	0	0
6	0	0	6	0	0
7	0	0	7	0	0
8	0	0	8	0	0
9	0	0	9	0	0
10	0	0	10	0	0
11	0	0	11	0	0
12	0	0	12	0	0
13	0	0	13	0	0
14	0	0	14	0	0
15	0	0	15	0	0
16	0	0	16	0	0
17	0	0	17	0	0
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21	0	0	21	0	0
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24	0	0	24	0	0
25	0	0	25	0	0
26	0	0	26	0	0
27	0	0	27	0	0
28	0	0	28	0	0
29	0	0	29	0	0
30	0	0	30	0	0
31	0	0	31	0	0
32	0	0	32	0	0
33	0	0	33	0	0
34	0	0	34	0	0
35	0	0	35	0	0
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37	0	0	37	0	0
38	0	0	38	0	0
39	0	0	39	0	0
40	0	0	40	0	0
41	0	0	41	0	0
42	0	0	42	0	0
43	0	0	43	0	0
44	0	0	44	0	0
45	0	0	45	0	0
46	0	0	46	0	0
47	0	0	47	0	0
48	0	0	48	0	0
49	0	0	49	0	0
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57	0	0	57	0	0
58	0	0	58	0	0
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65	0	0	65	0	0
66	0	0	66	0	0
67	0	0	67	0	0
68	0	0	68	0	0
69	0	0	69	0	0
70	0	0	70	0	0
71	0	0	71	0	0
72	0	0	72	0	0
73	0	0	73	0	0
74	0	0	74	0	0
75	0	0	75	0	0
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77	0	0	77	0	0
78	0	0	78	0	0
79	0	0	79	0	0
80	0	0	80	0	0
81	0	0	81	0	0
82	0	0	82	0	0
83	0	0	83	0	0
84	0	0	84	0	0
85	0	0	85	0	0
86	0	0	86	0	0
87	0	0	87	0	0
88	0	0	88	0	0
89	0	0	89	0	0
90	0	0	90	0	0
91	0	0	91	0	0
92	0	0	92	0	0
93	0	0	93	0	0
94	0	0	94	0	0
95	0	0	95	0	0
96	0	0	96	0	0
97	0	0	97	0	0
98	0	0	98	0	0
99	0	0	99	0	0
100	0	0	100	0	0

CAMP CARIBOU STATION 133
 DATE 18/12/75 TIME 718 (GMT)
 TRUE DIRECTION

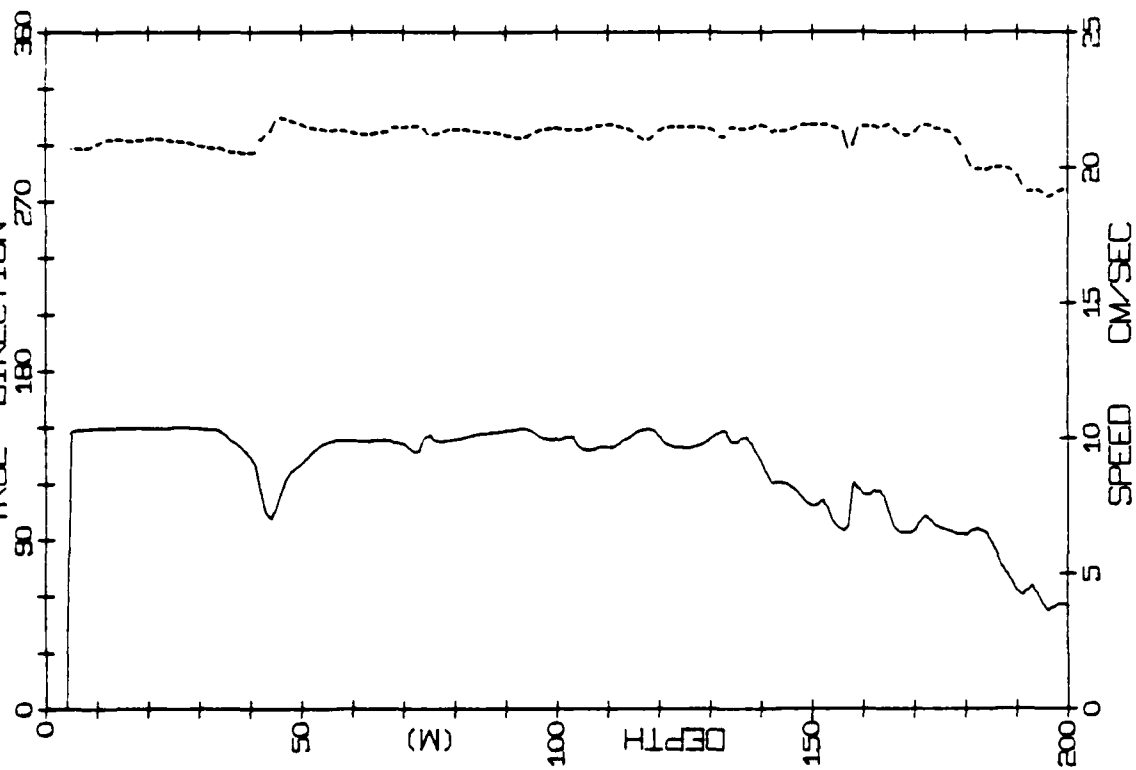


CAMP CARIBOU STATION 132
 DATE 17/12/75 TIME 2222 (GMT)
 TRUE DIRECTION



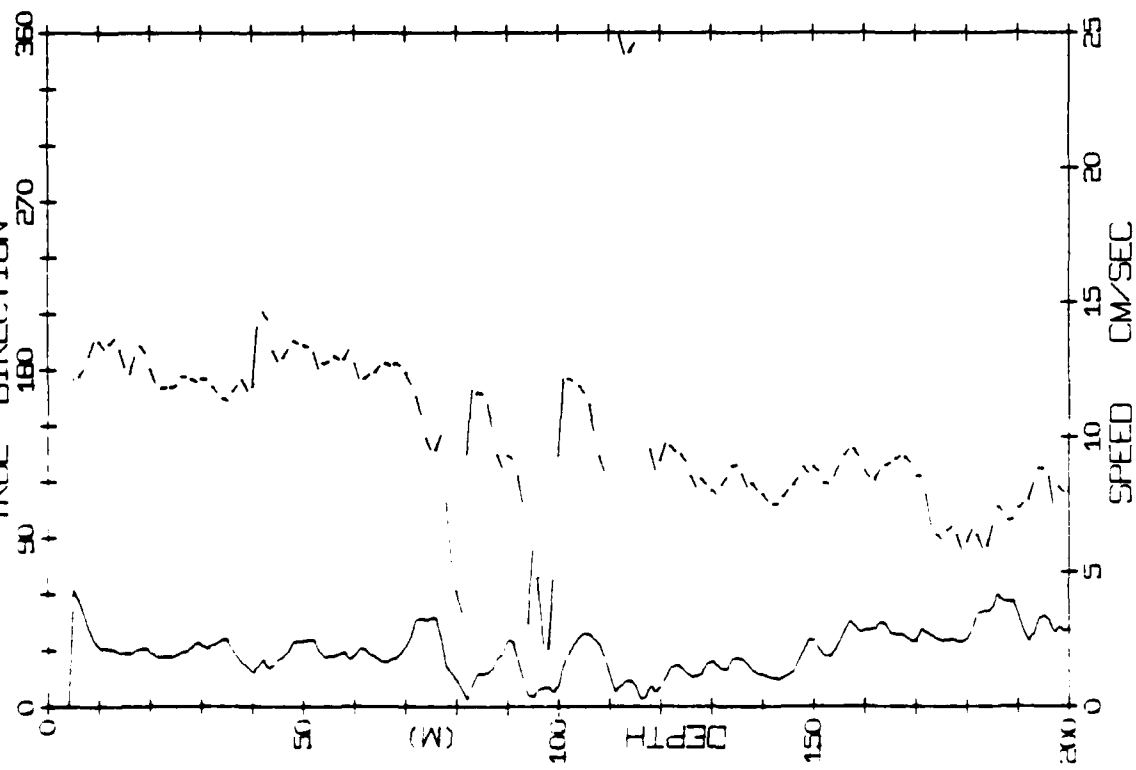
CAMP CARIBOU STATION 136
 DATE 20/12/75 TIME 2106 (GMT)

TRUE DIRECTION

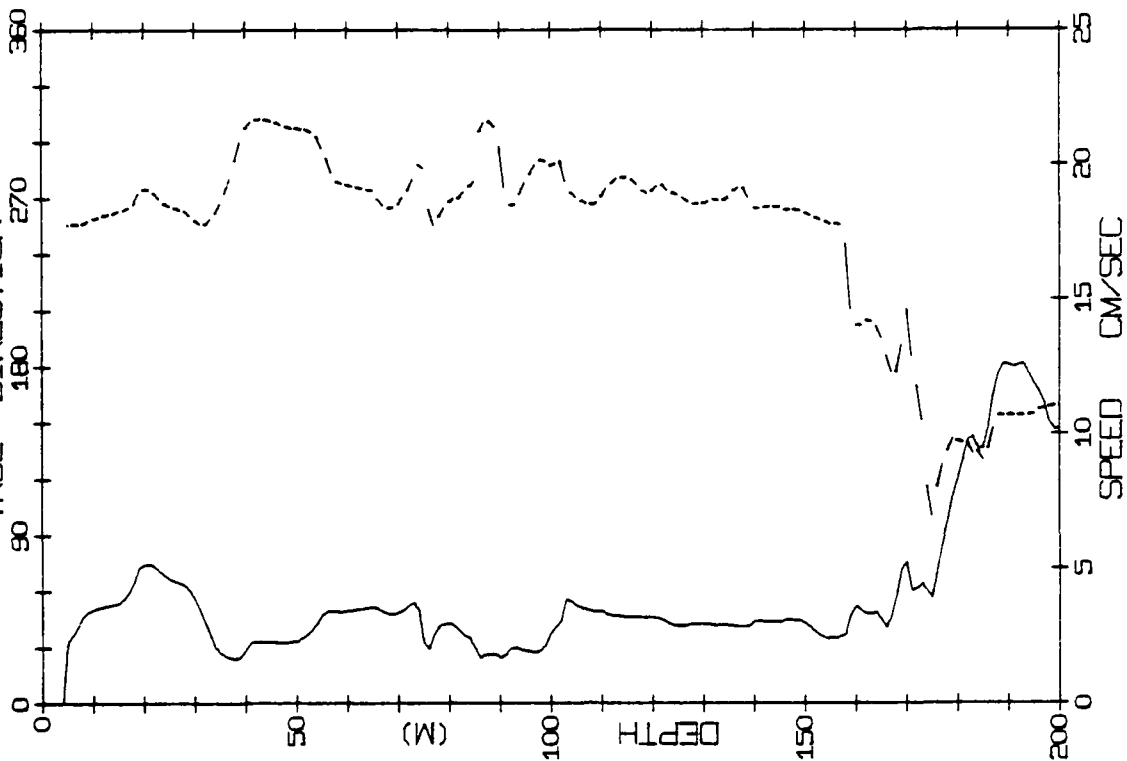


CAMP CARIBOU STATION 134
 DATE 18/12/75 TIME 2053 (GMT)

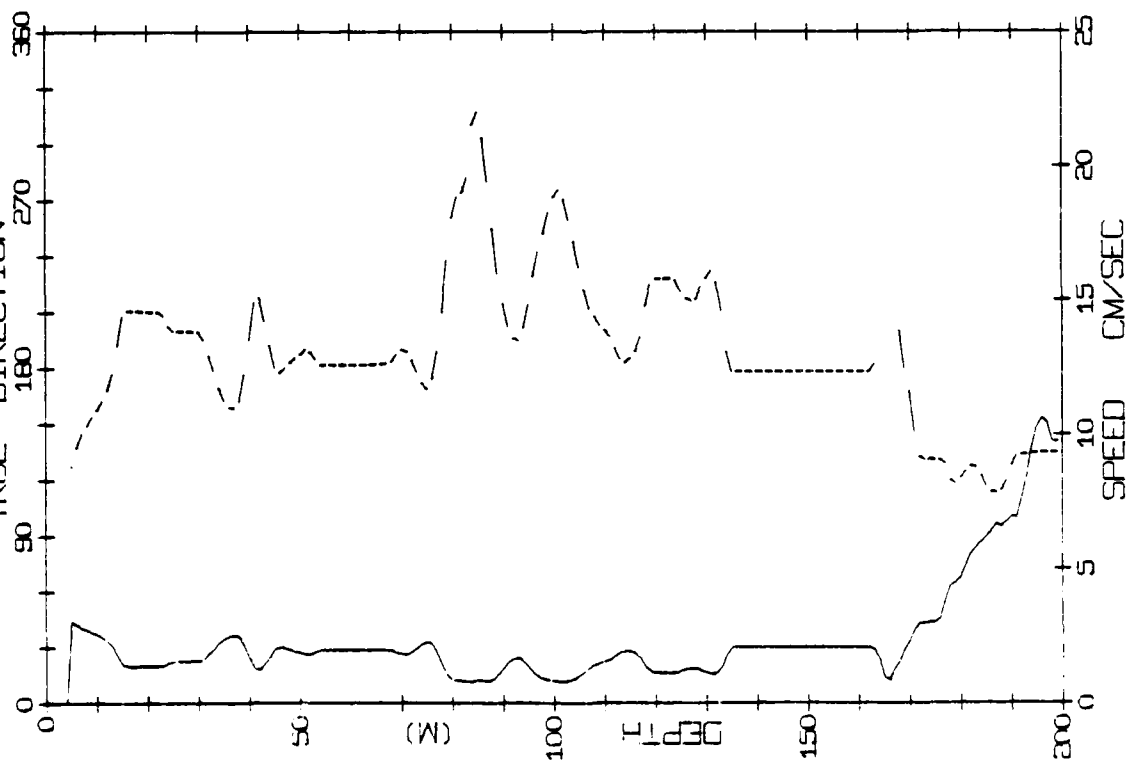
TRUE DIRECTION

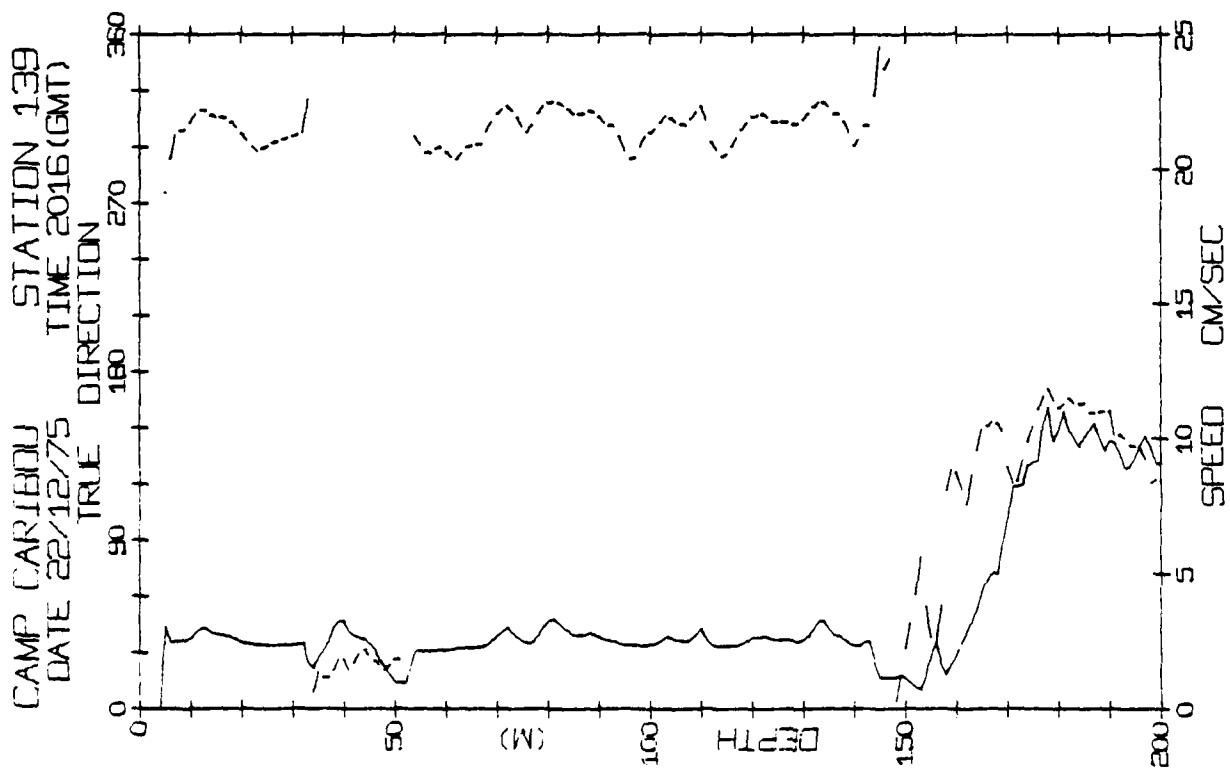
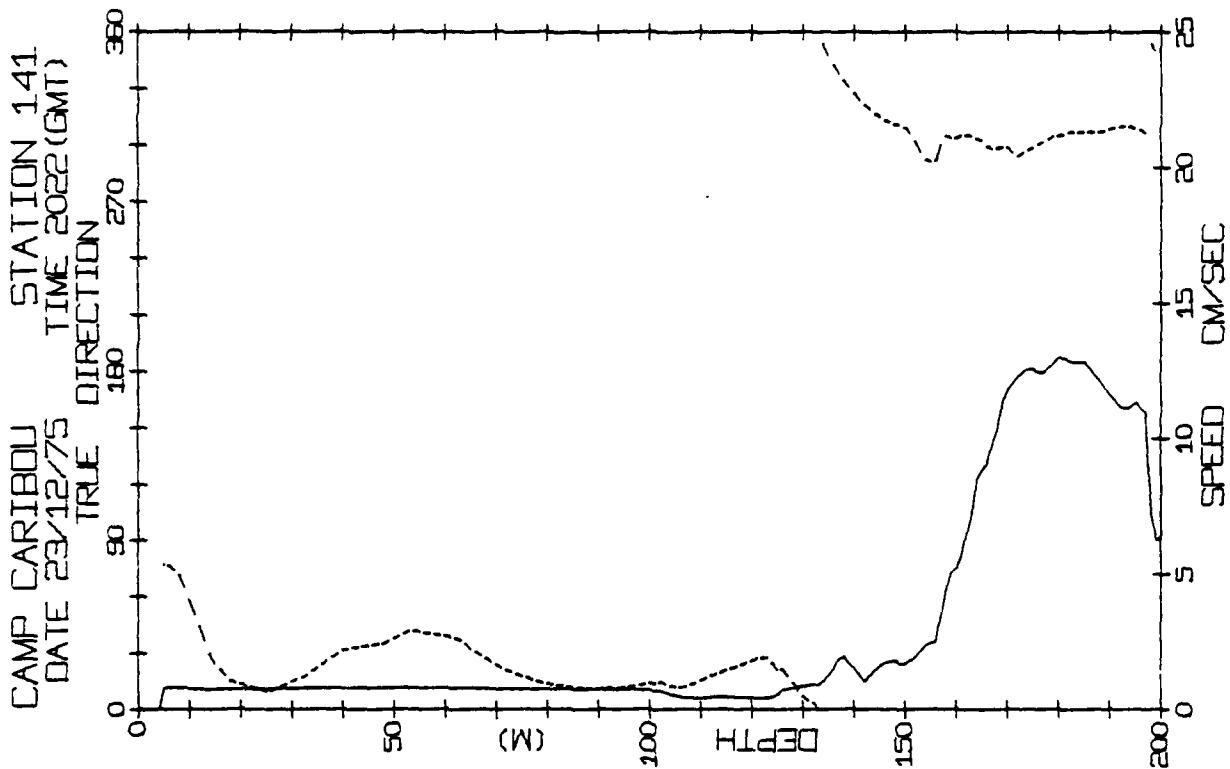


CAMP CARIBOU STATION 138
 DATE 22/12/75 TIME 641 (GMT)
 TRUE DIRECTION

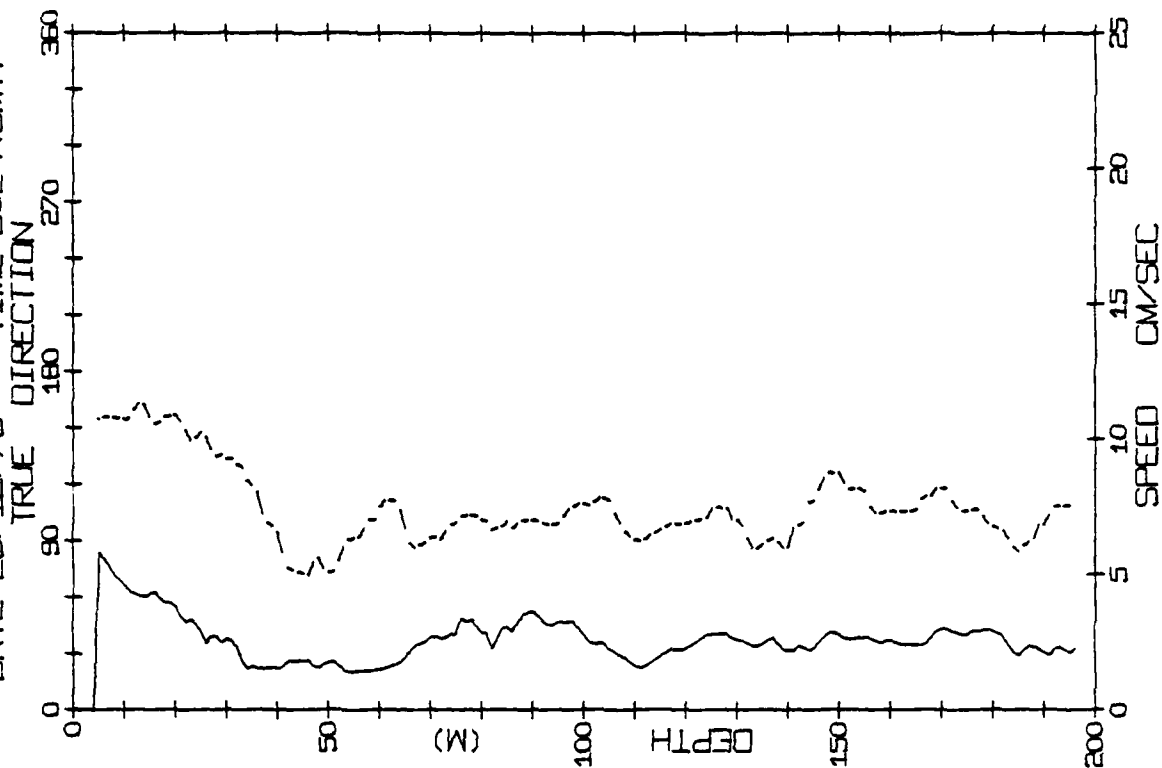


CAMP CARIBOU STATION 137
 DATE 21/12/75 TIME 1936 (GMT)
 TRUE DIRECTION

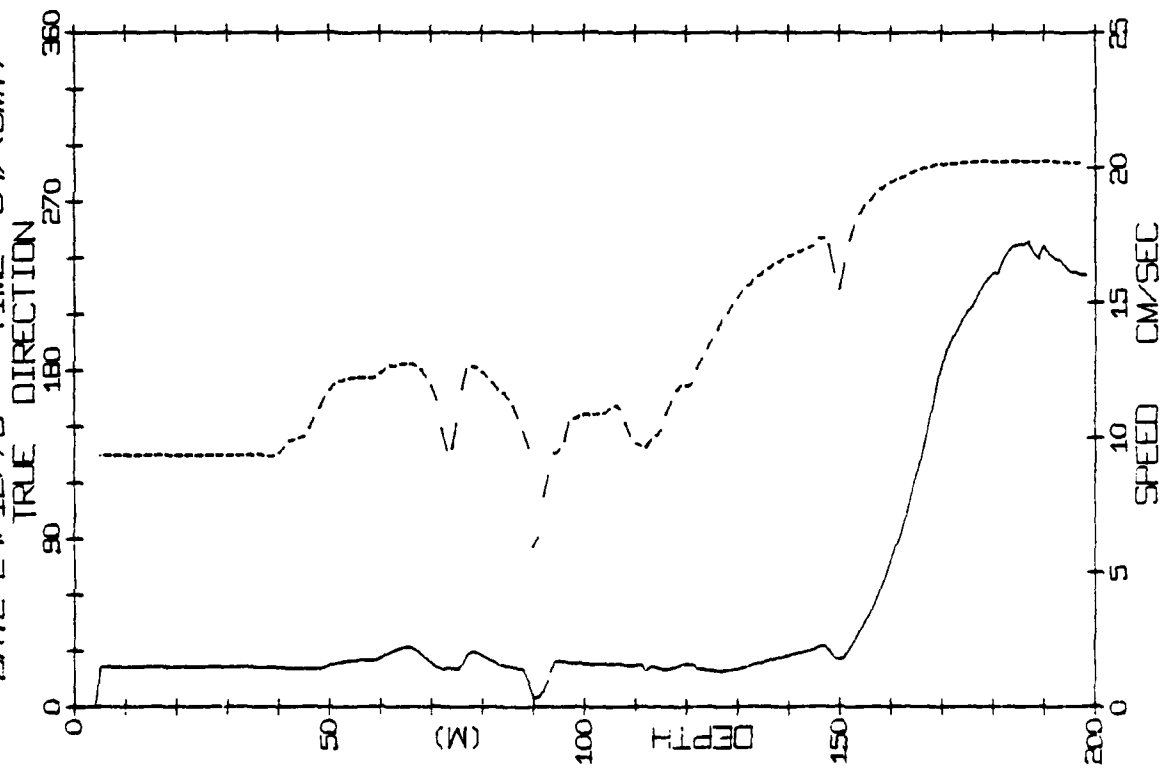


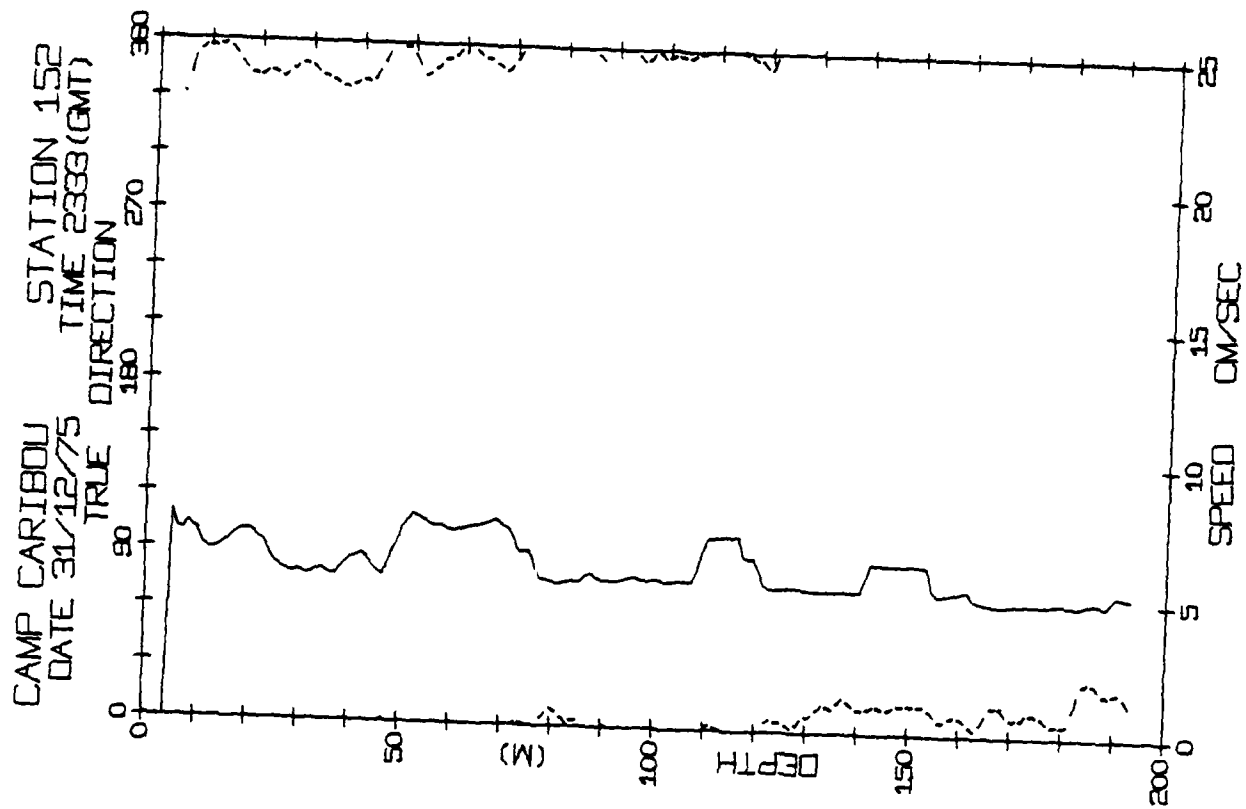
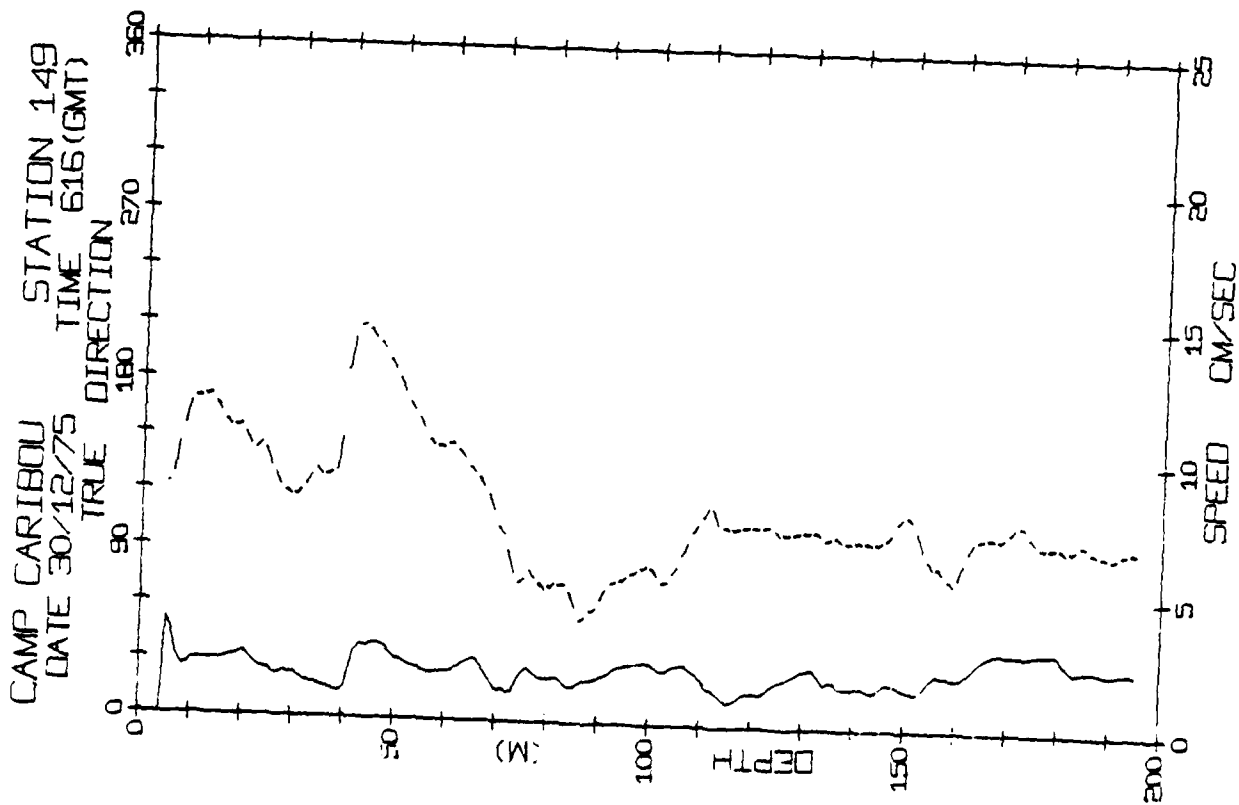


CAMP CARIBOU STATION 148
 DATE 29/12/75 TIME 2024 (GMT)

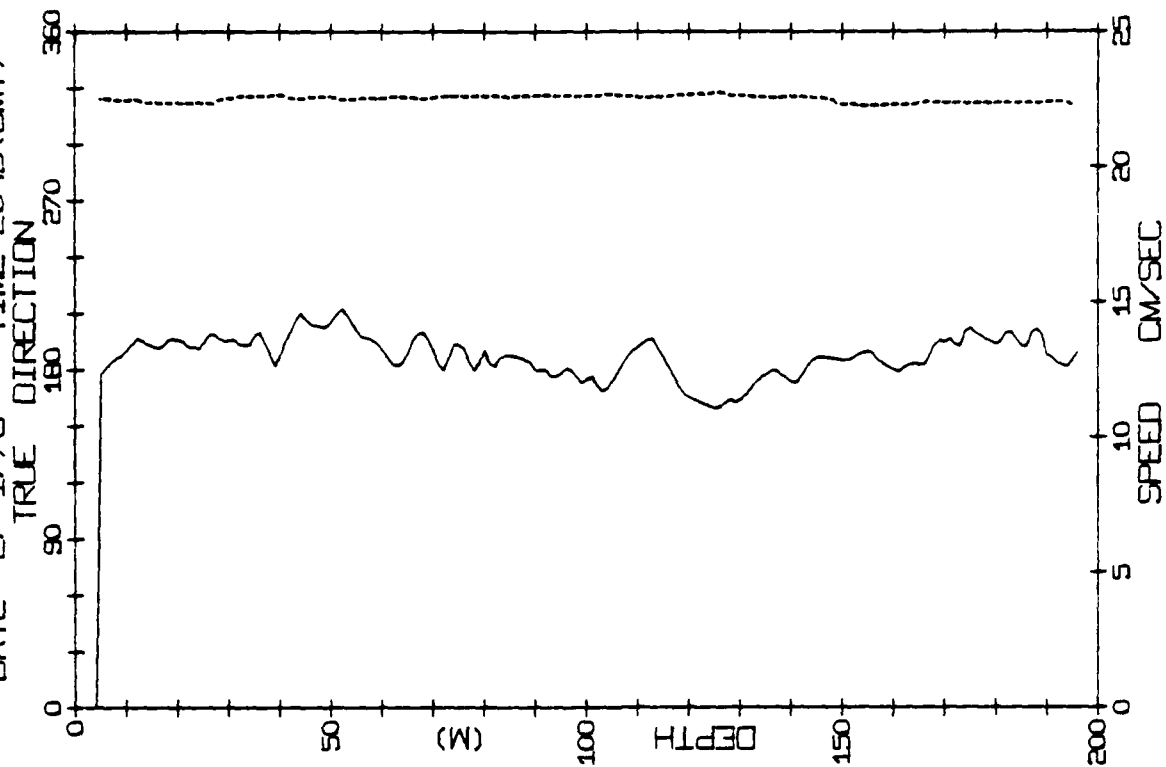


CAMP CARIBOU STATION 142
 DATE 24/12/75 TIME 647 (GMT)

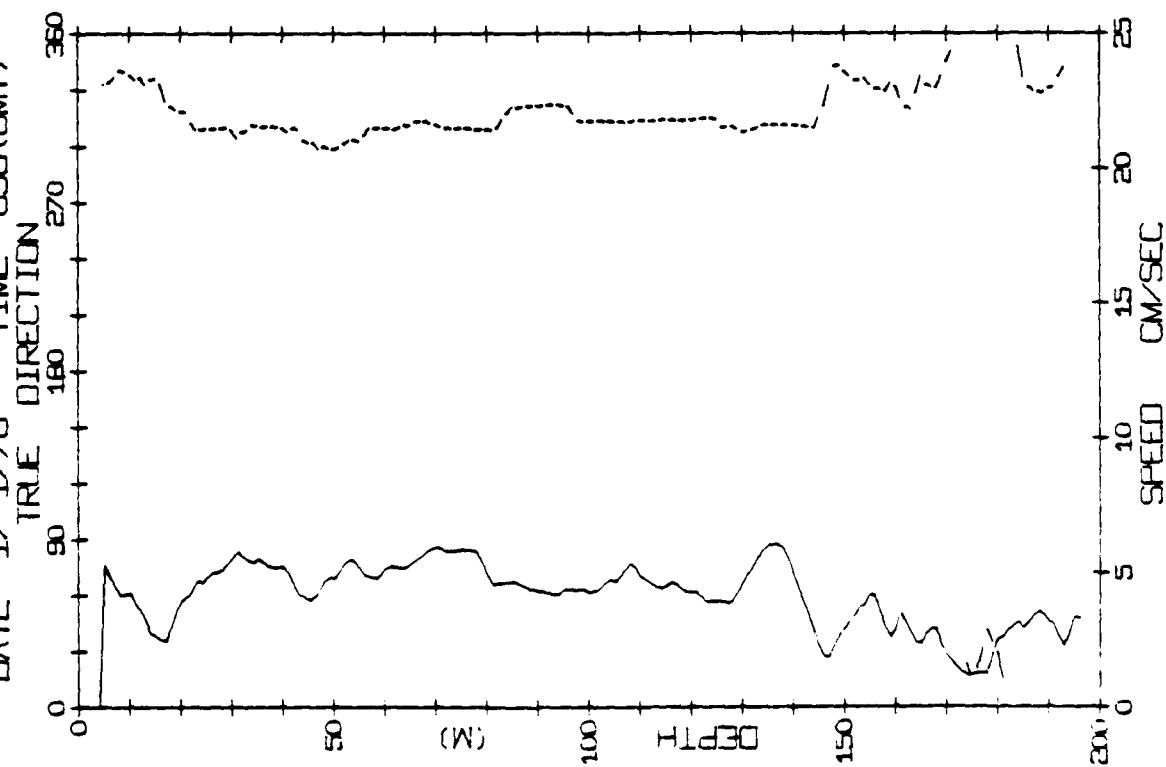


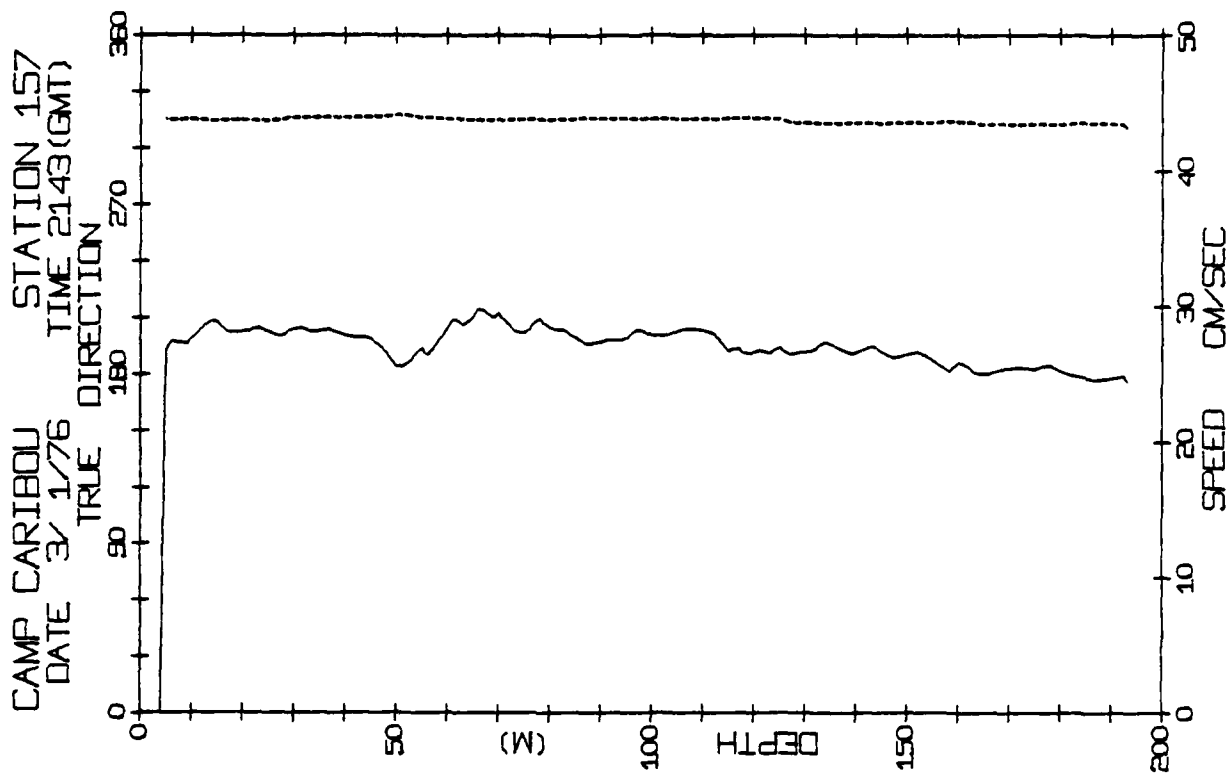
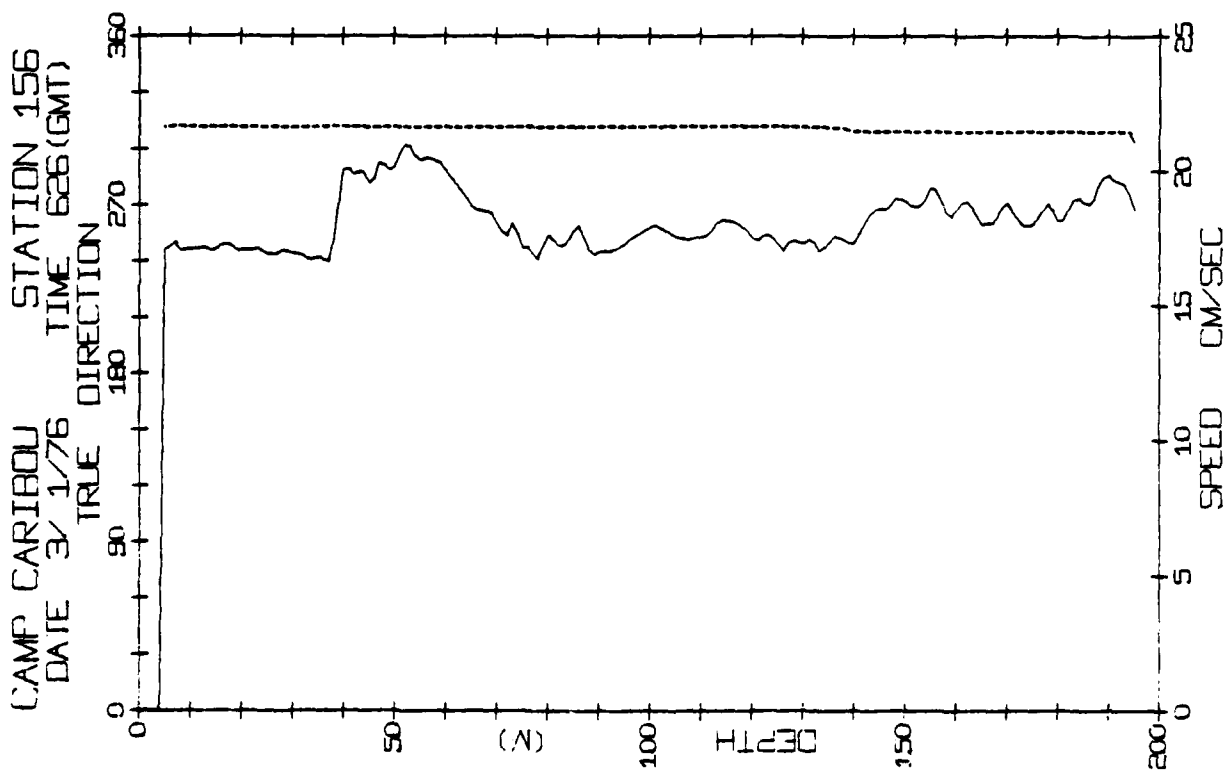


CAMP CARIBOU STATION 155
DATE 2/ 1/76 TIME 2045(GMT)



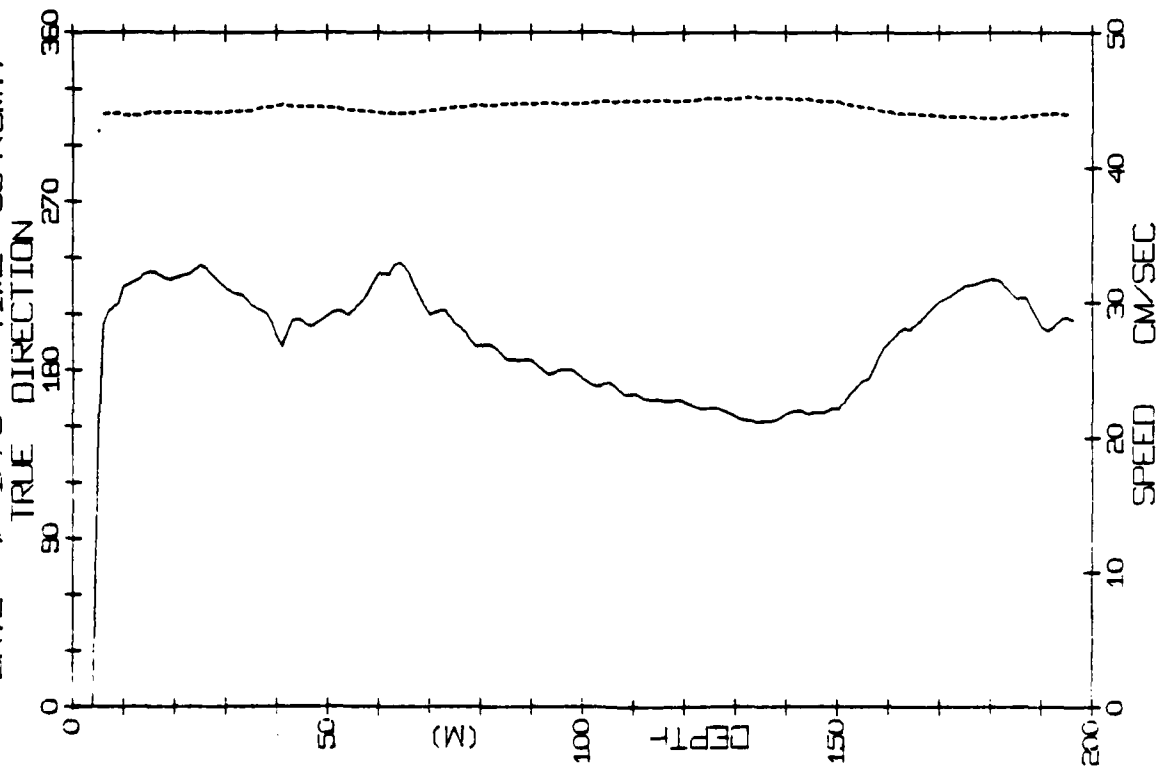
CAMP CARIBOU STATION 153
DATE 1/ 1/76 TIME 658(GMT)



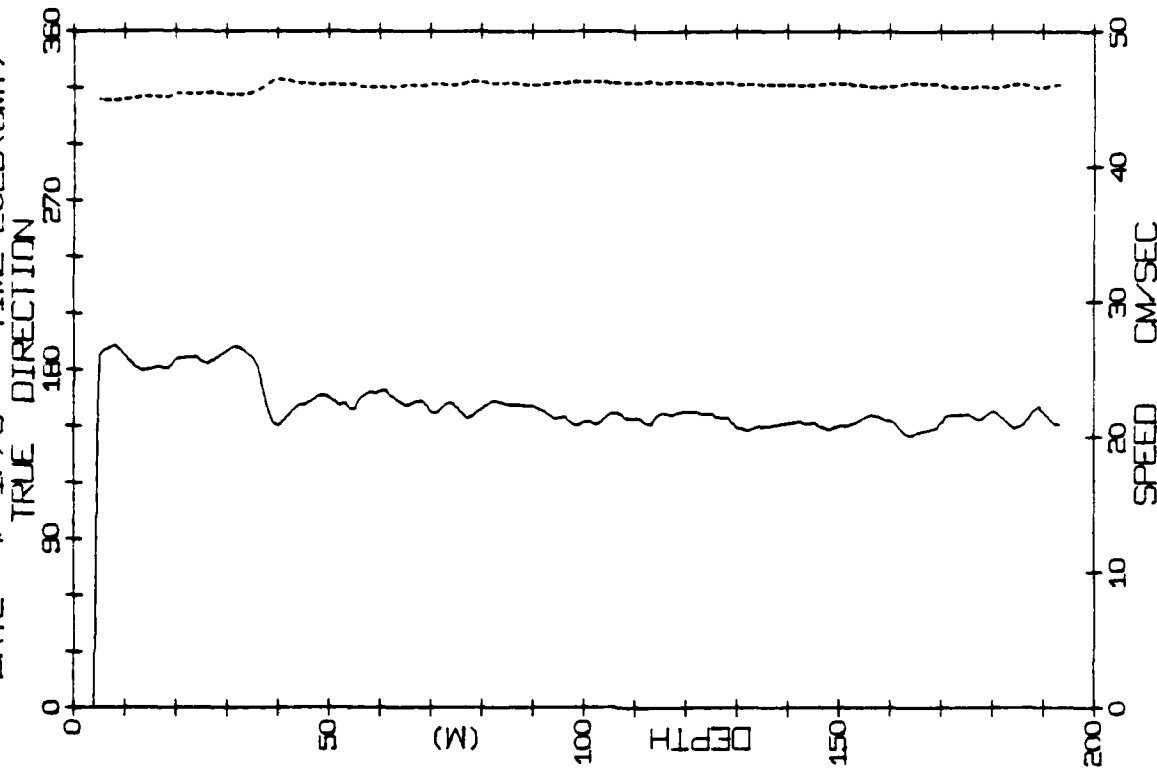


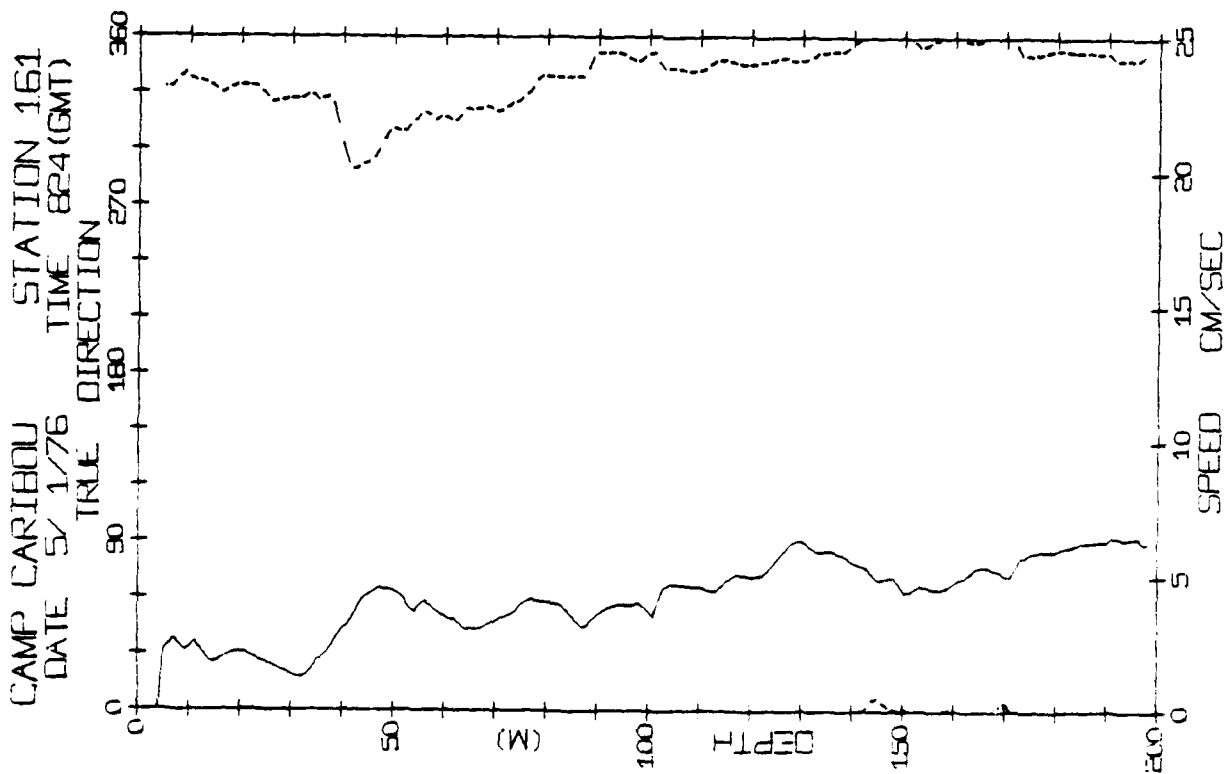
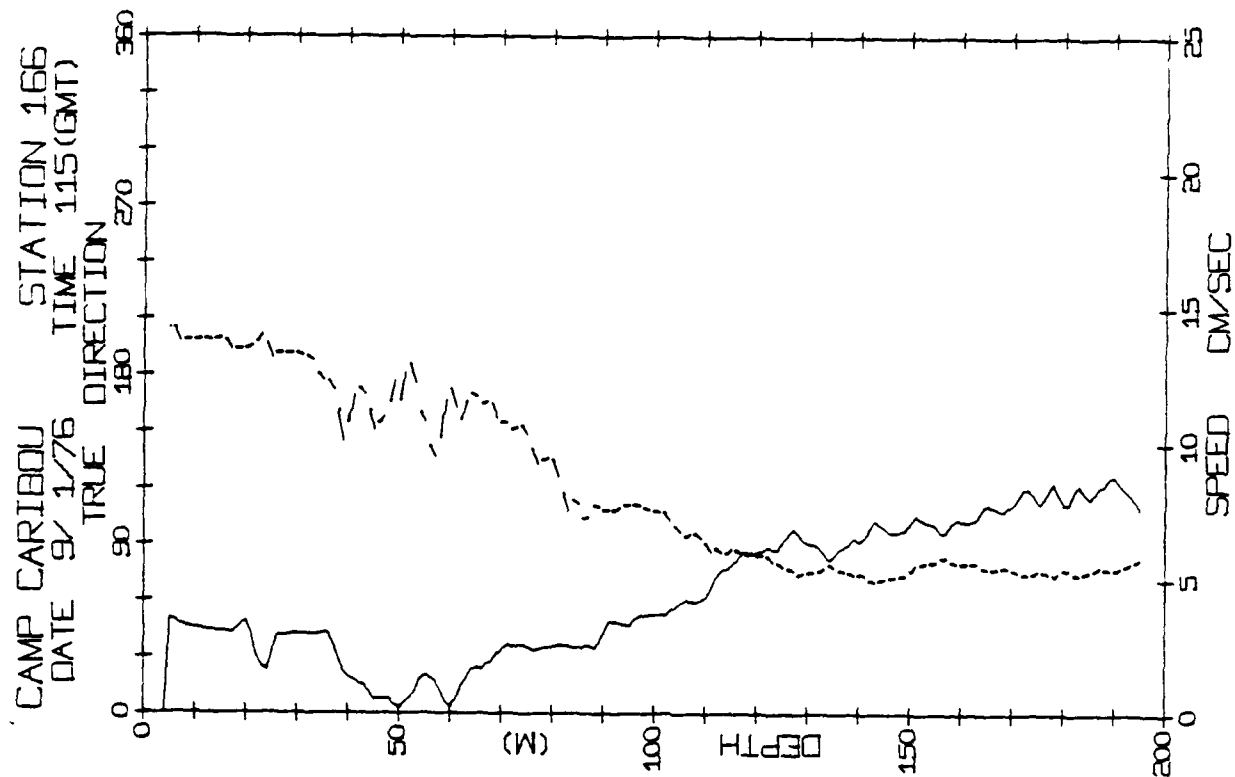
153

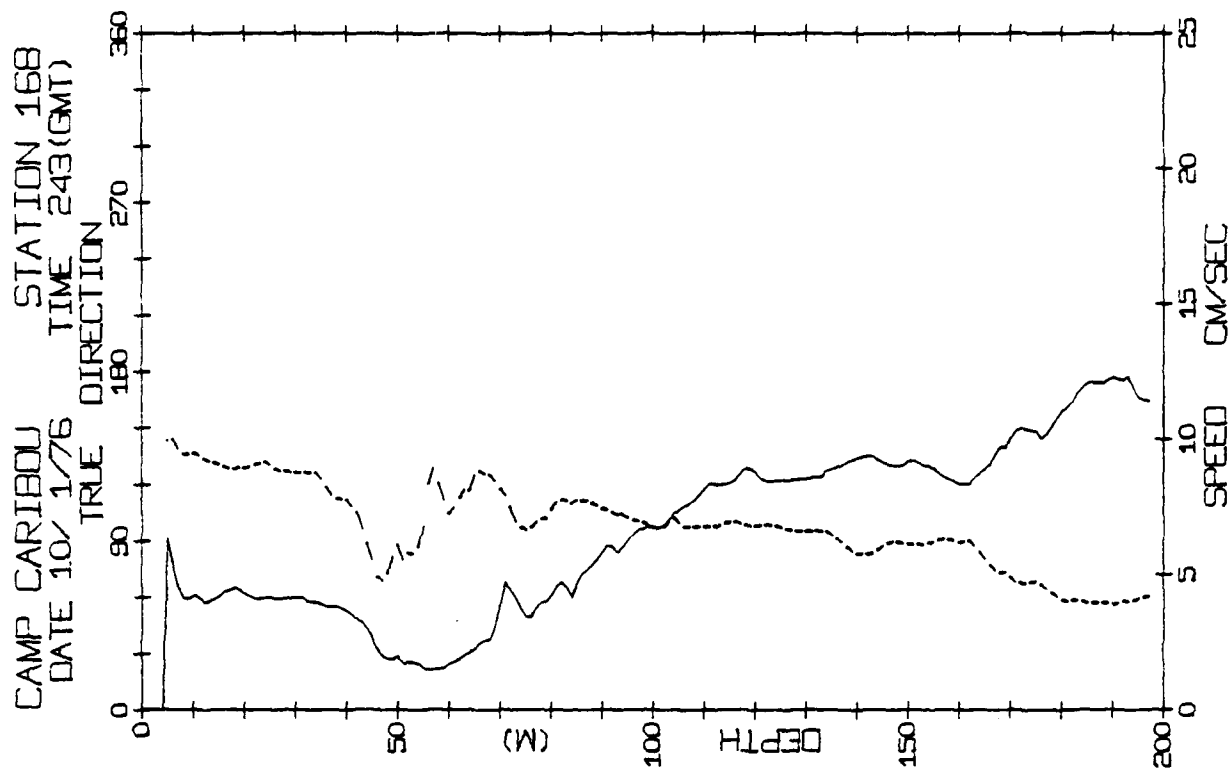
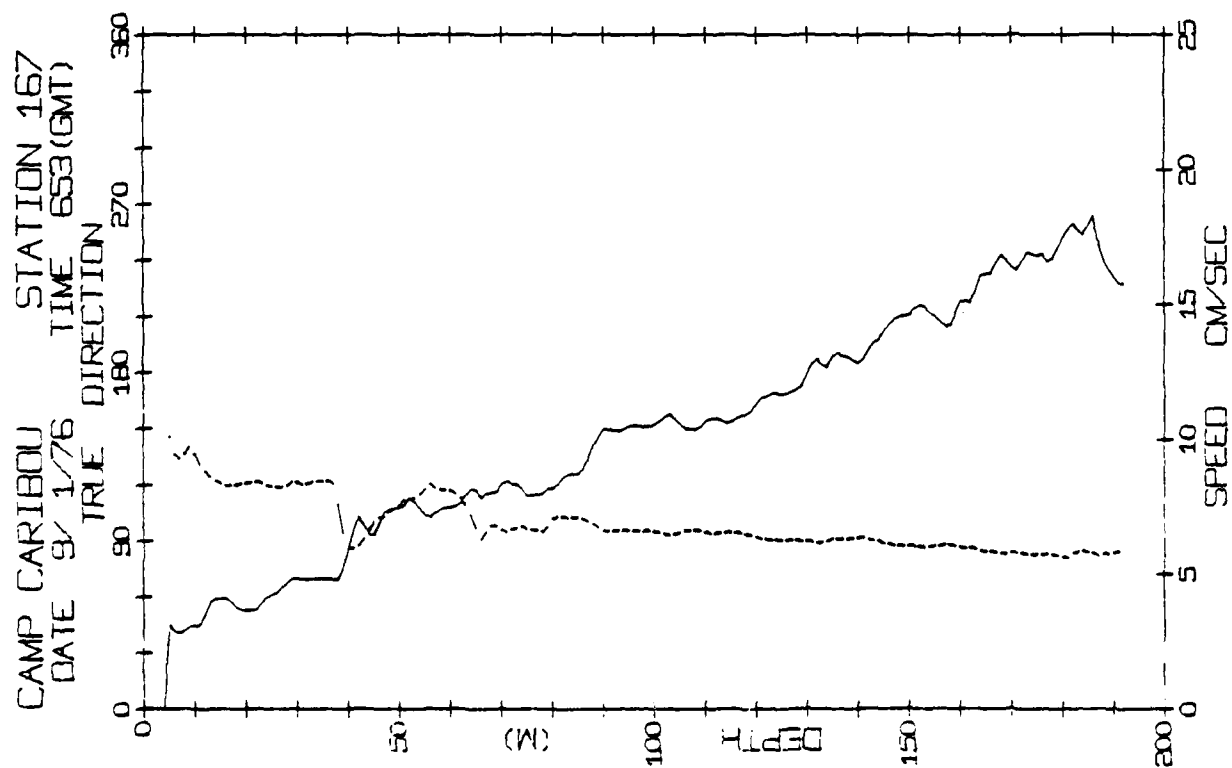
CAMP CARIBOU STATION 158
DATE 4/ 1/76 TIME 634(GMT)

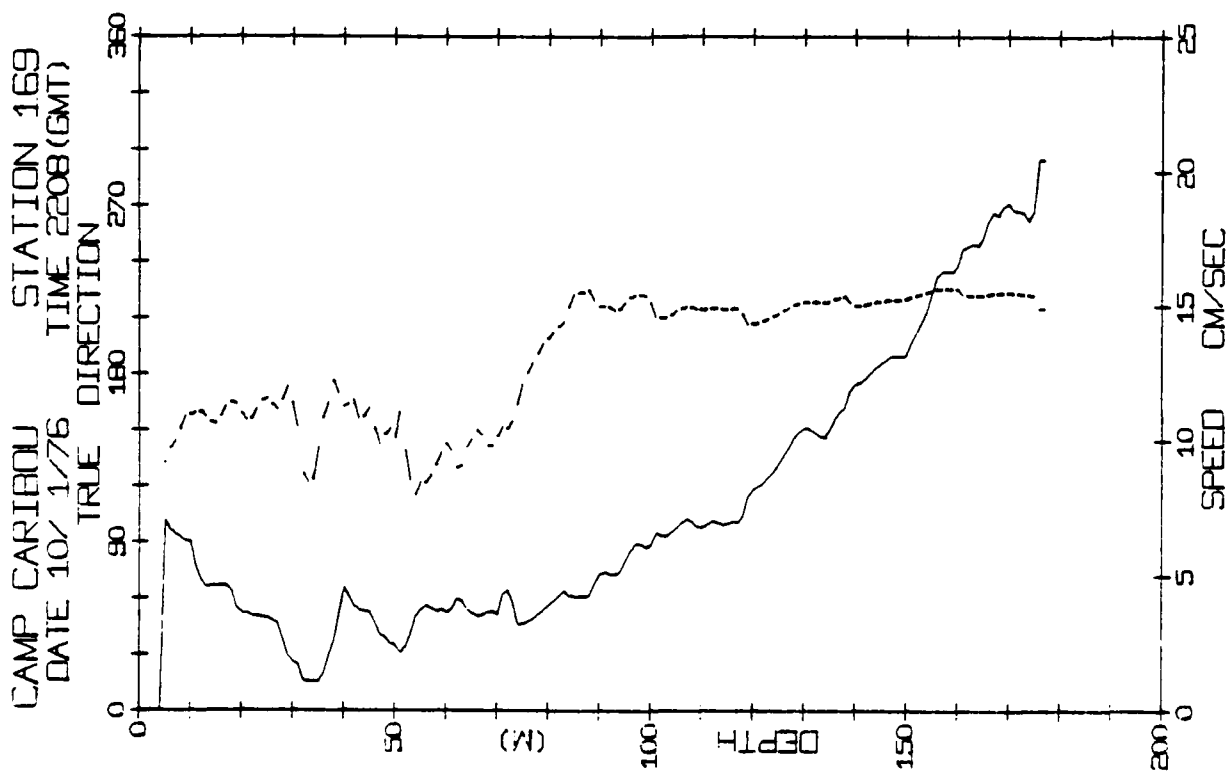
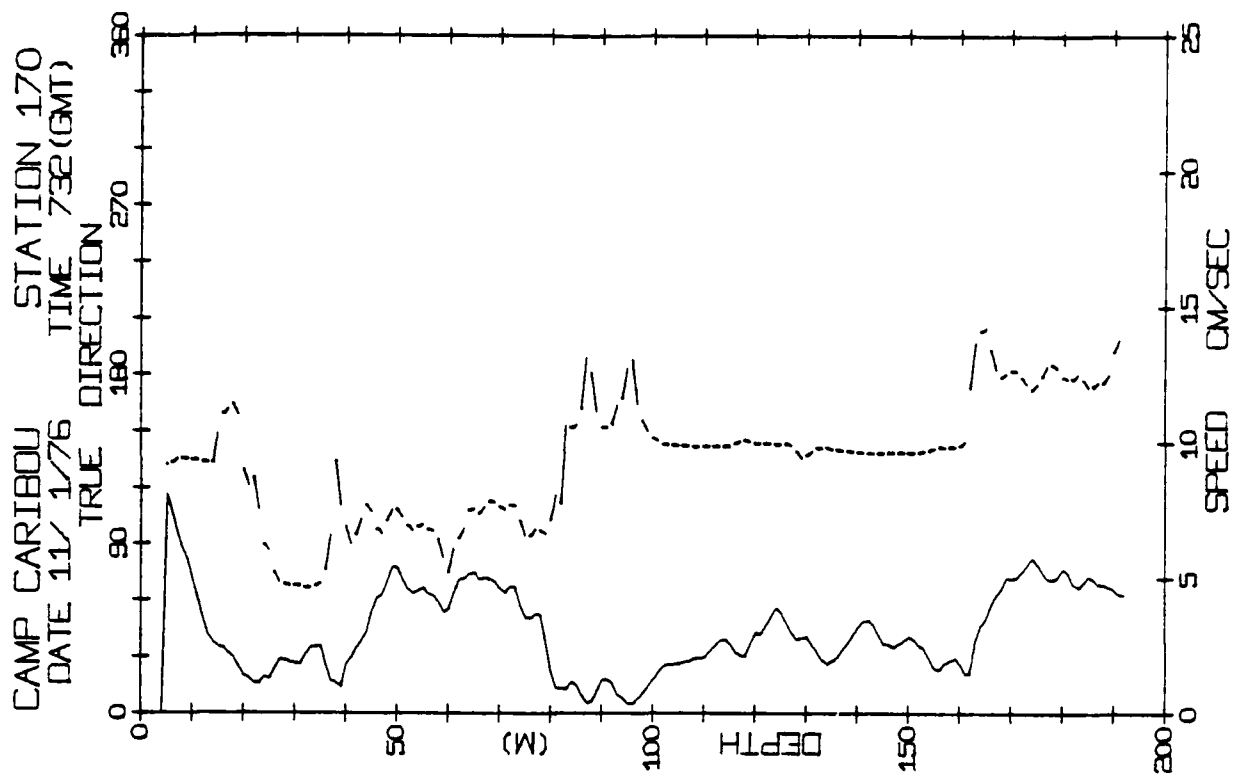


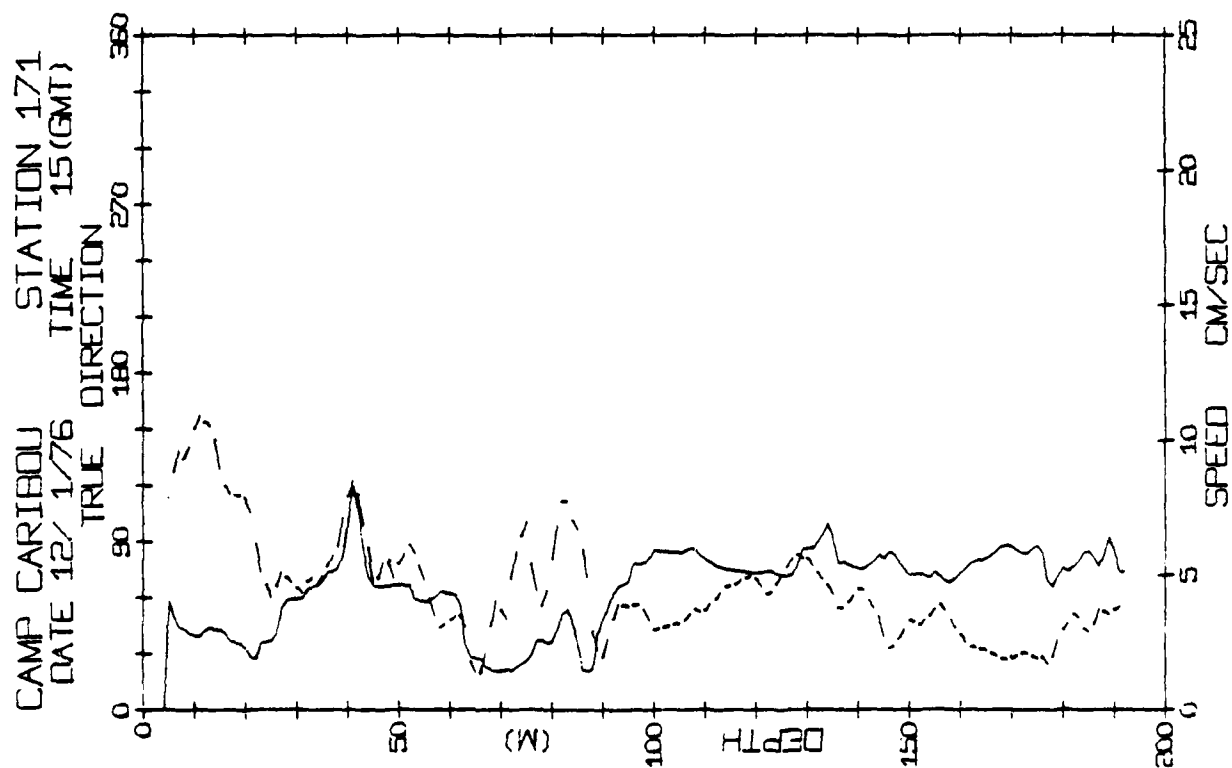
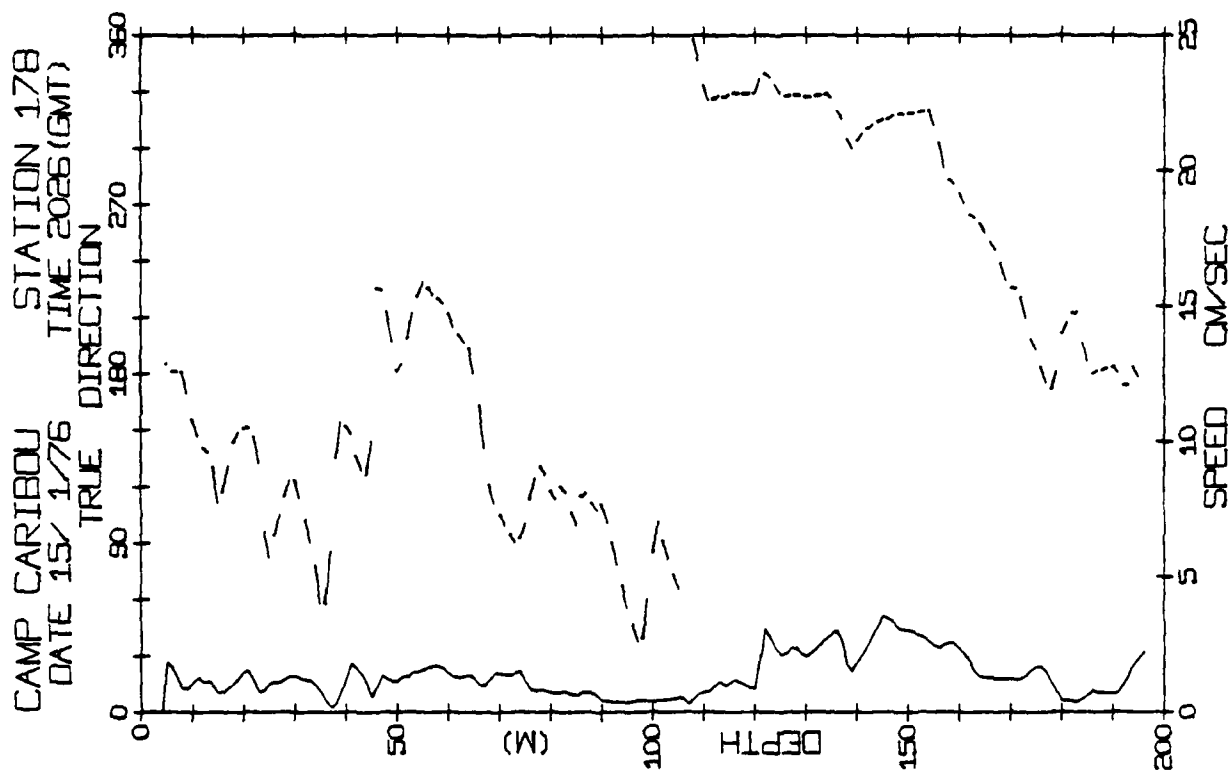
CAMP CARIBOU STATION 160
DATE 4/ 1/76 TIME 2029(GMT)

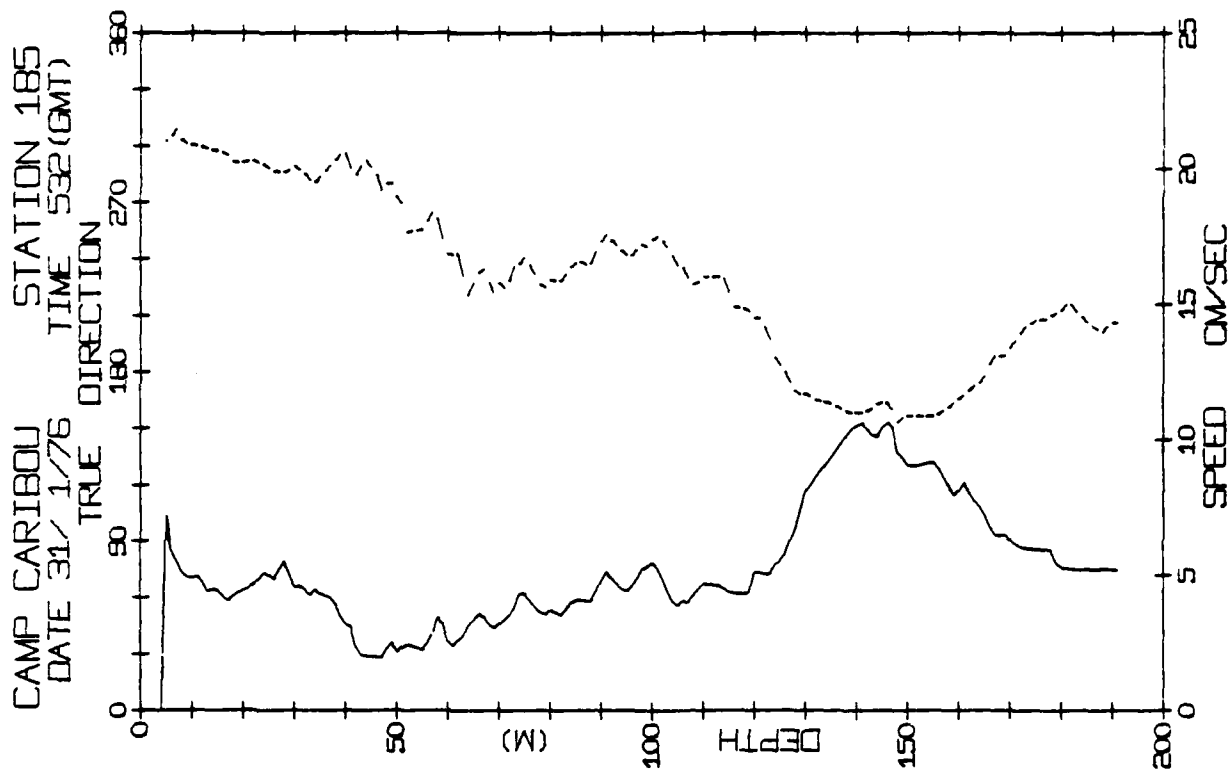
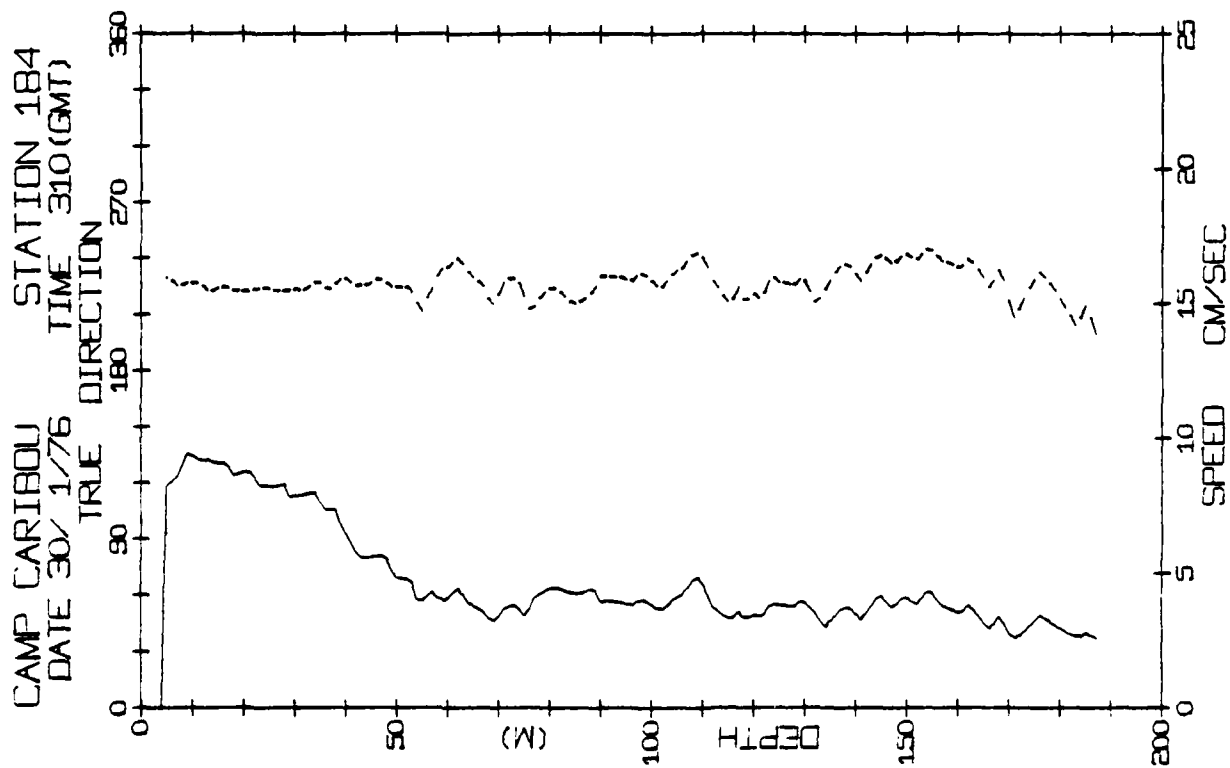


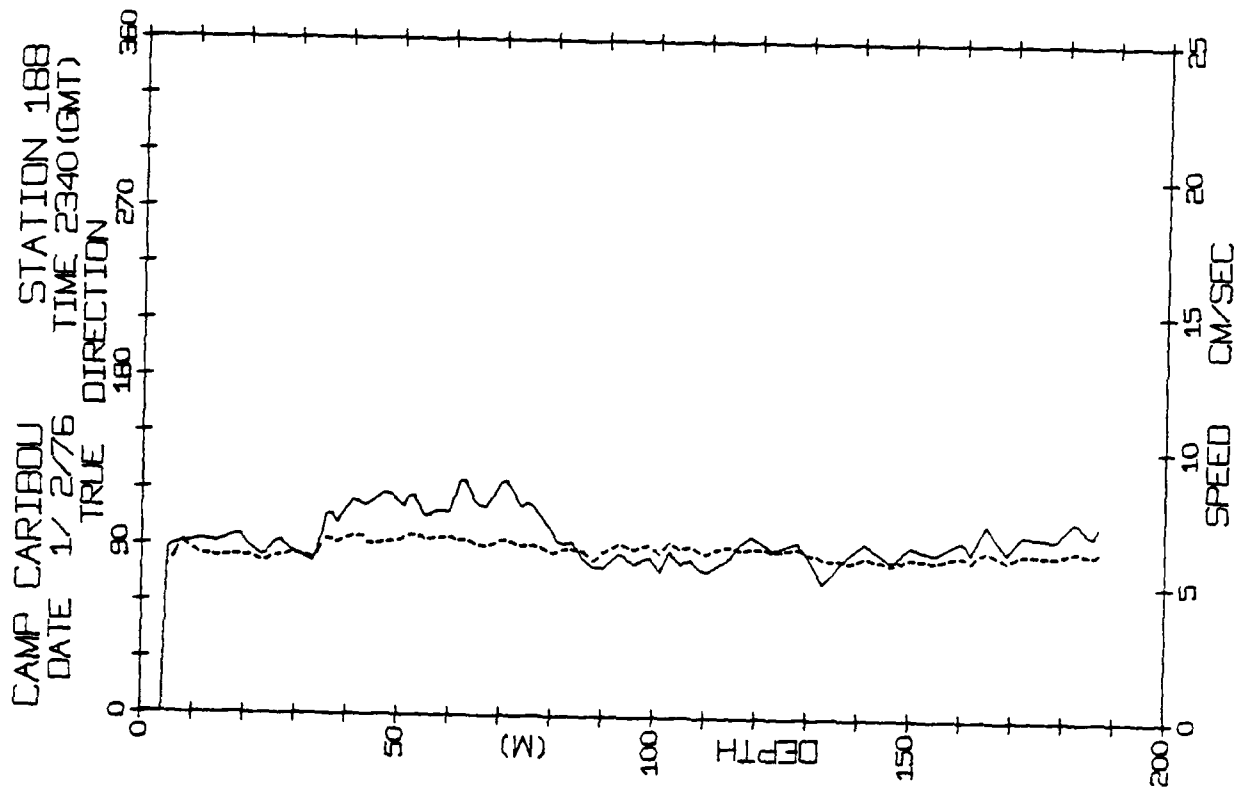
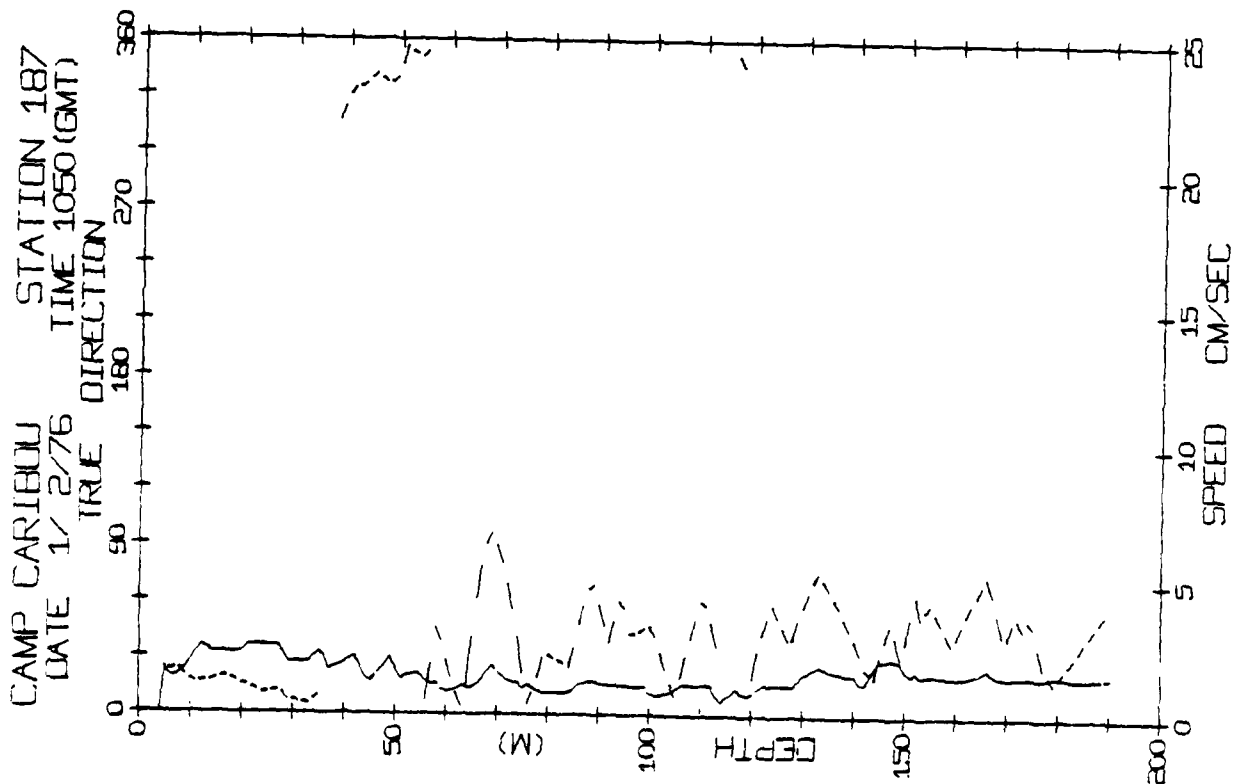




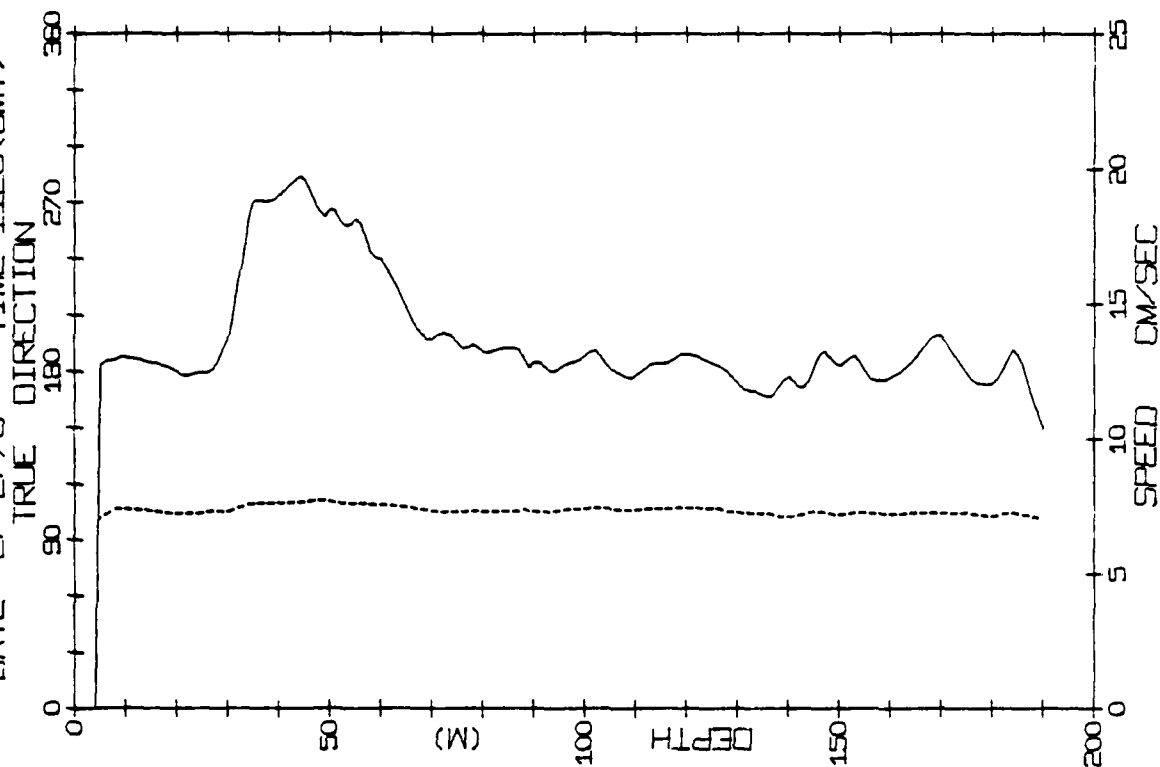




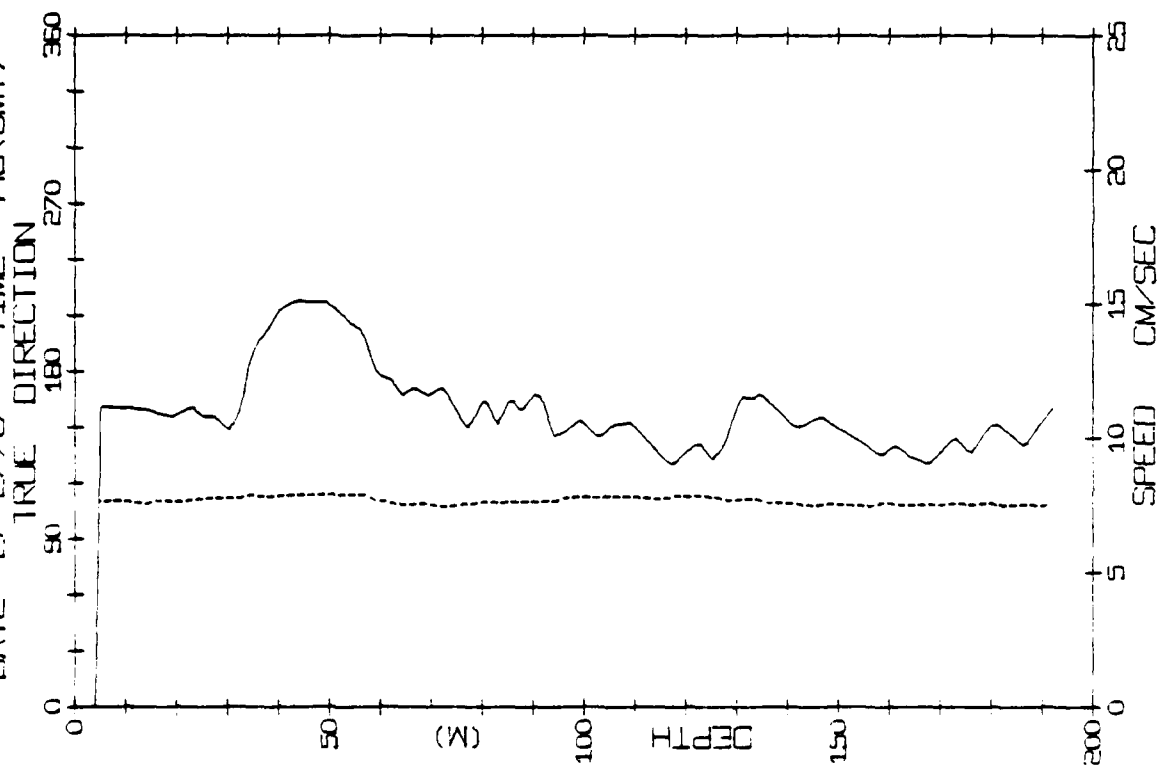




CAMP CARIBOU STATION 190
DATE 2/ 2/76 TIME 1126(GMT)



CAMP CARIBOU STATION 189
DATE 2/ 2/76 TIME 448(GMT)



CANIKOU STATION 109 (192M.) 2/FEB/76 448 GMT
LAT= 73.1136N LONG= 144.2049W LTRF= 1. IGRF= 1.
NLEVEL= -0.7 ELEV= 4.9 NVFR= 0. AVER= 0.

CANBERRA STATION 149 (192M.)
LAT= 73.1136N LONG= 144.2049W
NVEL= -0.7 EVEL= 4.9
LTF= 1.
NVR= 0.
2/FEB/76

CARIBOU STATION 149 (192M.)
LAT: 73.1136N LONG: 144.2049W
NIVEL: -0.7 ELEV: 4.9

CARIBOU STATION 149
LAT= 73.1136N LONG=
NIVEL= -0.7 FIVE.

CANIHOU 5
LAT= 73.11
NIVEL= -0

Captive

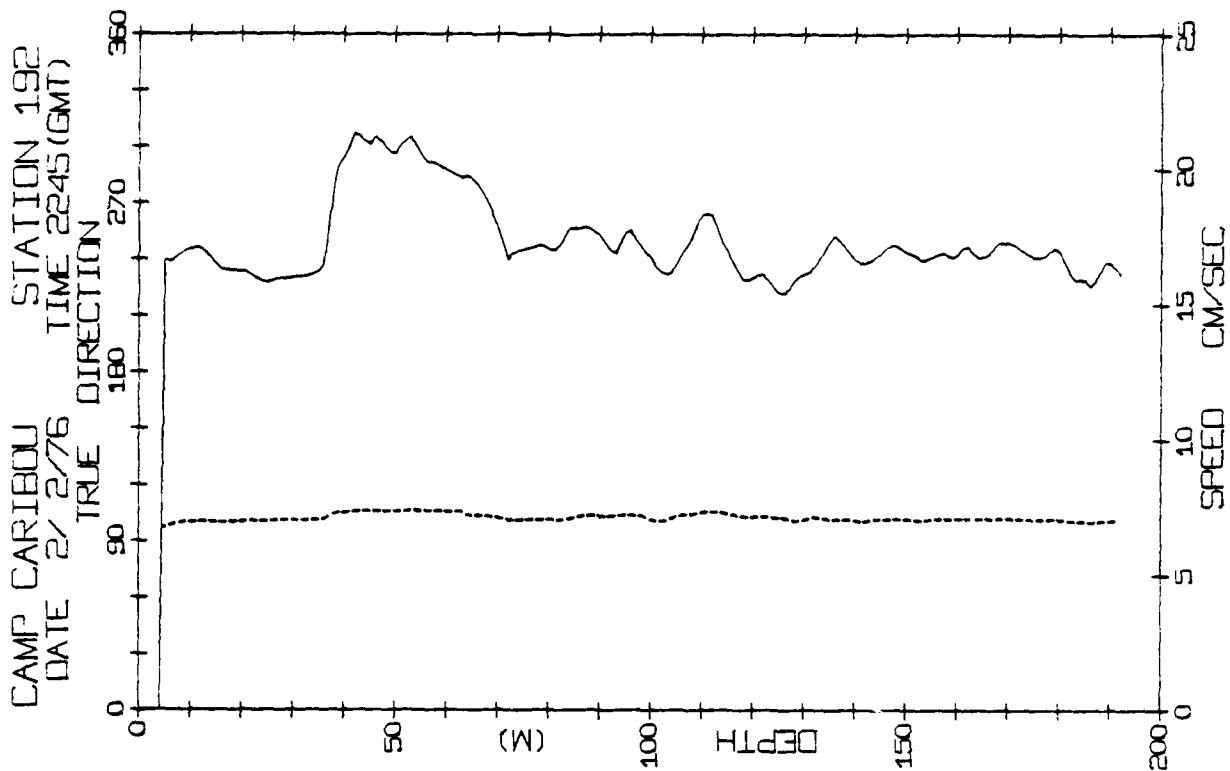
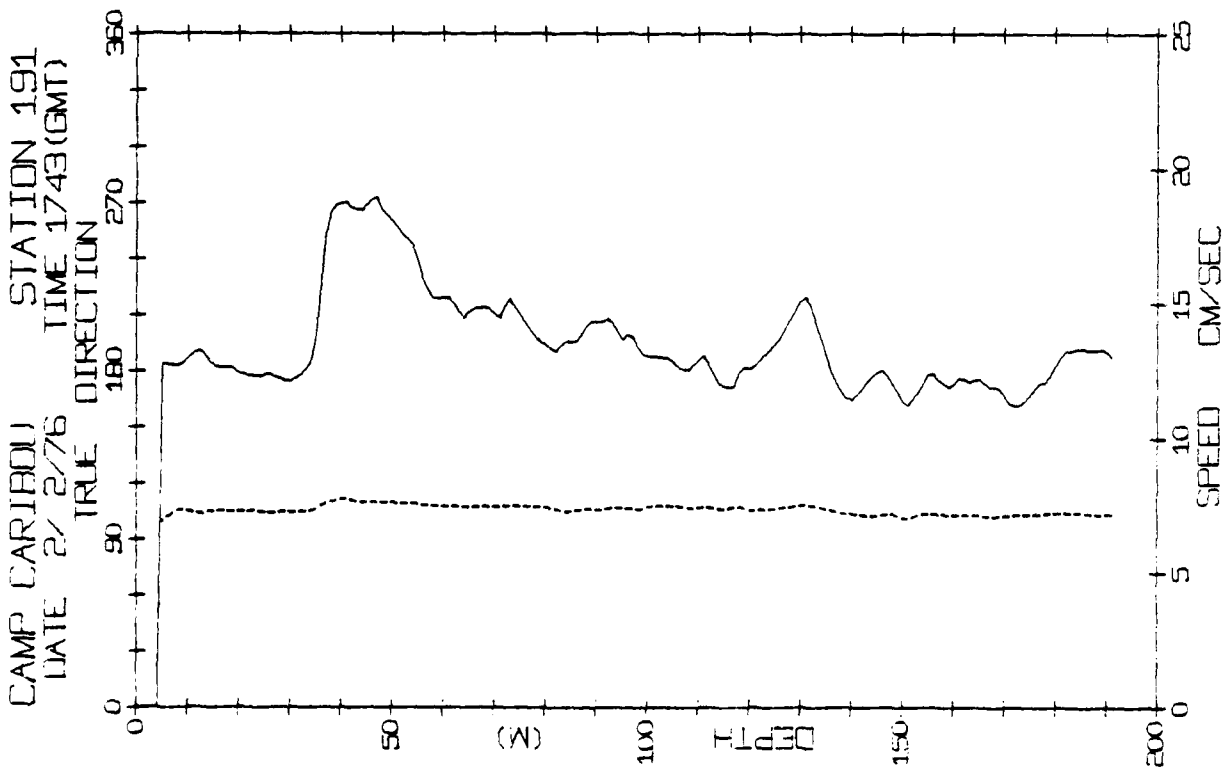
[illegible][illegible]

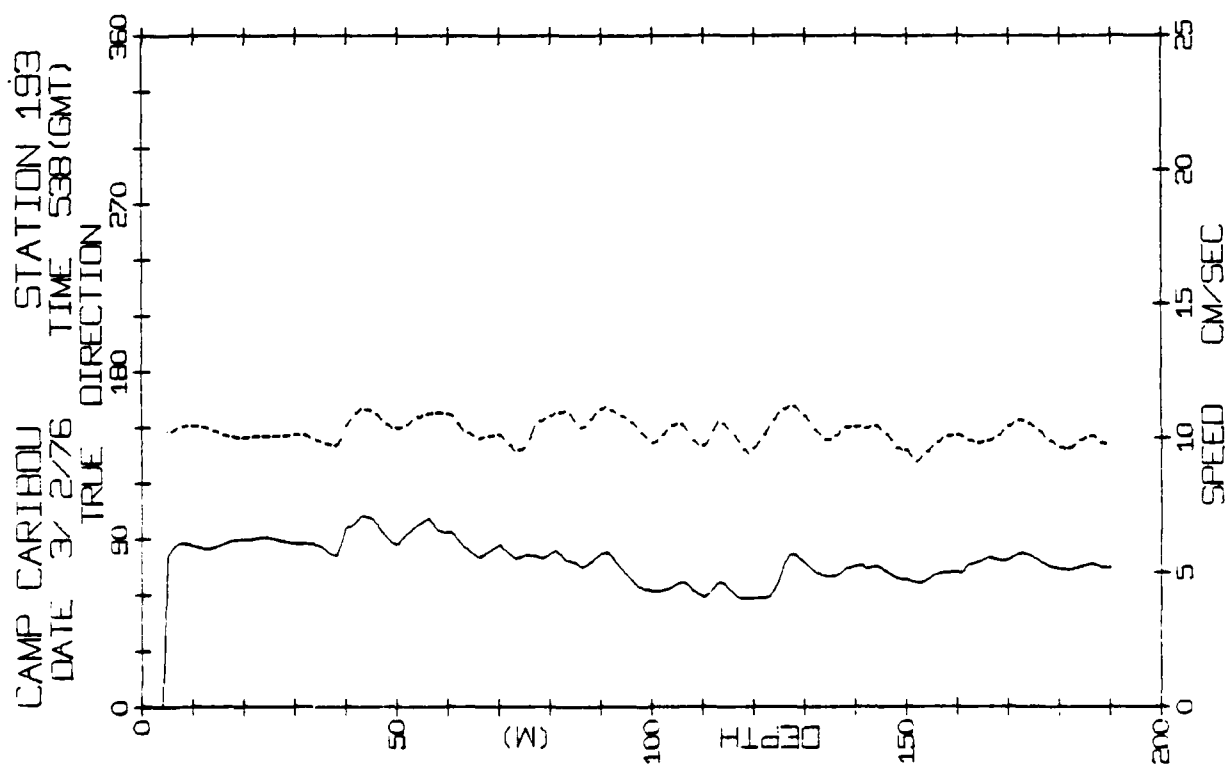
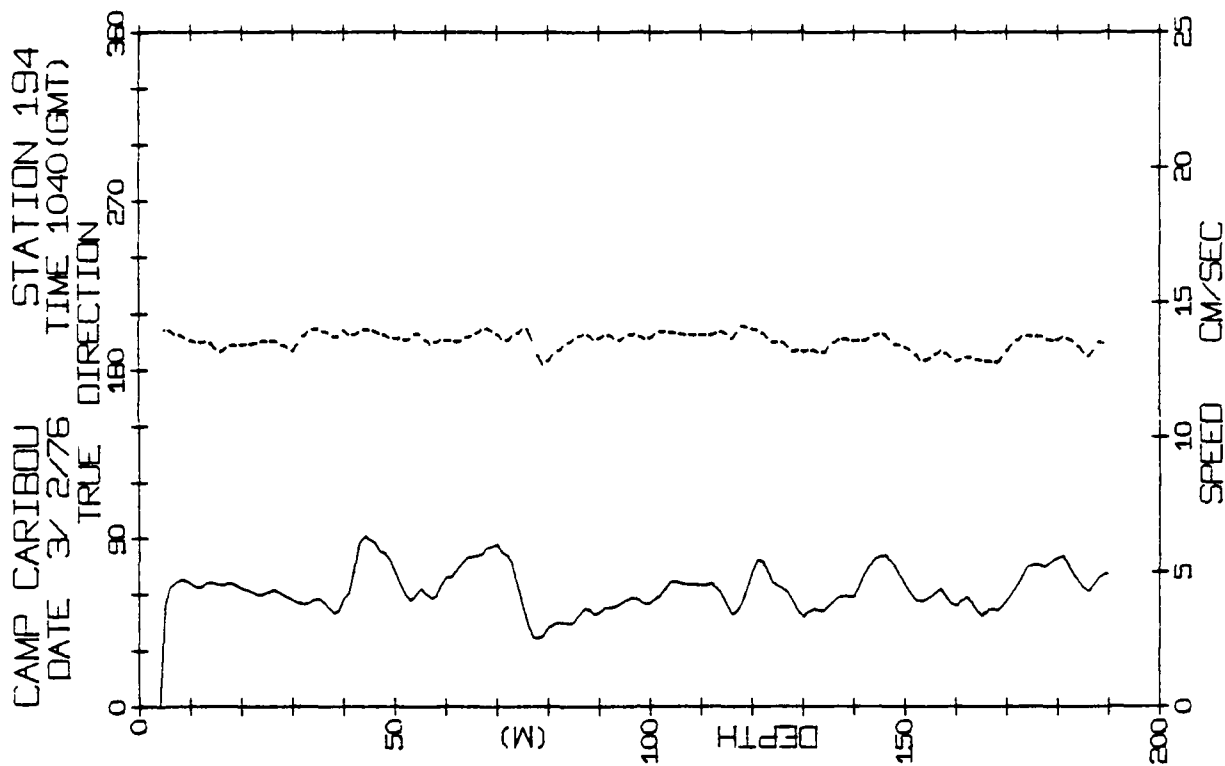
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61	0	0	0	0	0
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63	0	0	0	0	0
64	0	0	0	0	0
65	0	0	0	0	0

DUPT	SFD	LRN
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3	0	99
4	0	99
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6	1	1
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Index	SDP	SDP
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[illegible]



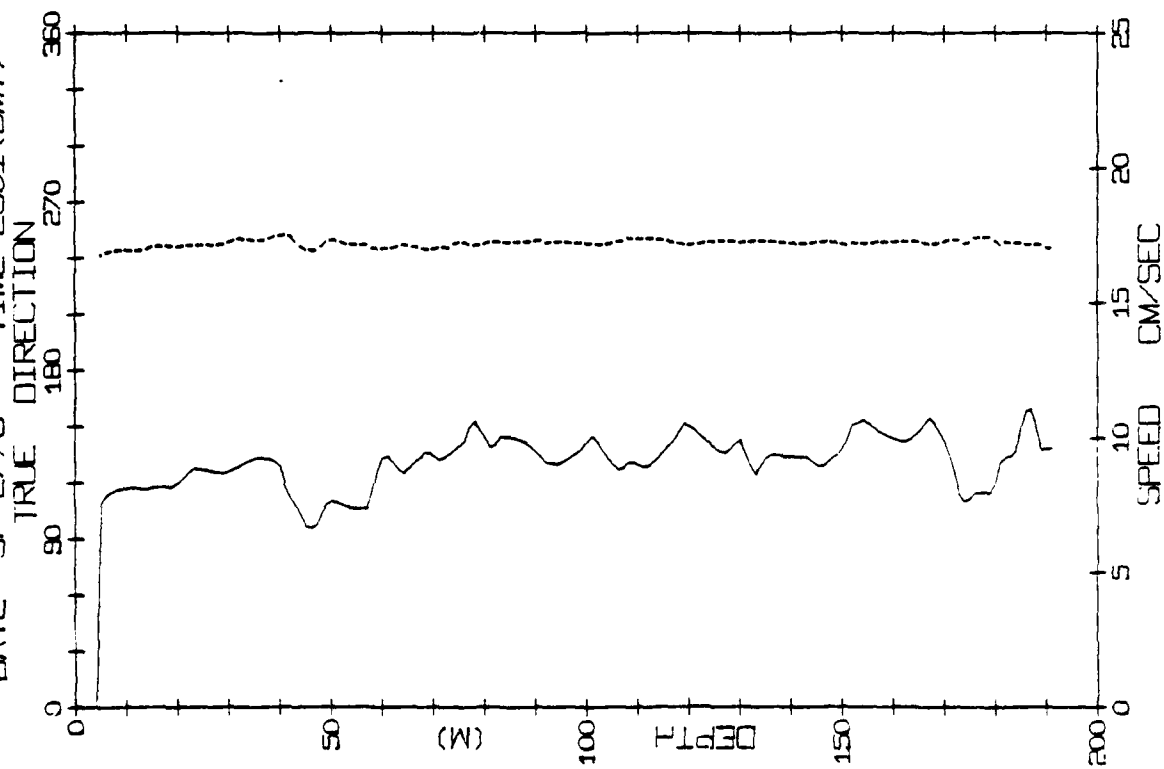


STATION 194	(190W.)	1/FEH/76	1940 GMT
DATE=73.1132	LONG=143.0013	UTIME=1.	2.
TIME=-1.1	ELEV=3.0	LGFR=0.	EVER=0.
OPT	SPD	DRN	DPT
0	0.0	999.9	67
1	0.0	999.9	68
2	0.0	999.9	69
3	0.0	999.9	70
4	0.0	999.9	71
5	3.8	201.6	72
6	4.5	201.0	73
7	4.6	199.0	74
8	4.7	198.1	75
9	4.7	197.0	76
10	4.7	195.7	77
11	4.4	194.5	78
12	4.5	194.4	79
13	4.6	195.4	80
14	4.5	194.1	81
15	4.5	191.0	82
16	4.5	191.0	83
17	4.6	193.9	84
18	4.4	193.6	85
19	4.4	193.9	86
20	4.4	194.1	87
21	4.4	195.5	88
22	4.4	195.5	89
23	4.4	195.5	90
24	4.4	195.5	91
25	4.4	195.5	92
26	4.4	195.5	93
27	4.4	195.5	94
28	4.4	195.5	95
29	4.4	195.5	96
30	4.4	195.5	97
31	4.4	195.5	98
32	4.4	195.5	99
33	4.4	195.5	100
34	4.4	195.5	101
35	4.4	195.5	102
36	4.4	195.5	103
37	4.4	195.5	104
38	4.4	195.5	105
39	4.4	195.5	106
40	4.4	195.5	107
41	4.4	195.5	108
42	4.4	195.5	109
43	4.4	195.5	110
44	4.4	195.5	111
45	4.4	195.5	112
46	4.4	195.5	113
47	4.4	195.5	114
48	4.4	195.5	115
49	4.4	195.5	116
50	4.4	195.5	117
51	4.4	195.5	118
52	4.4	195.5	119
53	4.4	195.5	120
54	4.4	195.5	121
55	4.4	195.5	122
56	4.4	195.5	123
57	4.4	195.5	124
58	4.4	195.5	125
59	4.4	195.5	126
60	4.4	195.5	127
61	4.4	195.5	128
62	4.4	195.5	129
63	4.4	195.5	130
64	4.4	195.5	131
65	4.4	195.5	132
66	4.4	195.5	133
67	4.4	195.5	134
68	4.4	195.5	135
69	4.4	195.5	136
70	4.4	195.5	137
71	4.4	195.5	138
72	4.4	195.5	139
73	4.4	195.5	140
74	4.4	195.5	141
75	4.4	195.5	142
76	4.4	195.5	143
77	4.4	195.5	144
78	4.4	195.5	145
79	4.4	195.5	146
80	4.4	195.5	147
81	4.4	195.5	148
82	4.4	195.5	149
83	4.4	195.5	150
84	4.4	195.5	151
85	4.4	195.5	152
86	4.4	195.5	153
87	4.4	195.5	154
88	4.4	195.5	155
89	4.4	195.5	156
90	4.4	195.5	157
91	4.4	195.5	158
92	4.4	195.5	159
93	4.4	195.5	160
94	4.4	195.5	161
95	4.4	195.5	162
96	4.4	195.5	163
97	4.4	195.5	164
98	4.4	195.5	165
99	4.4	195.5	166
100	4.4	195.5	167
101	4.4	195.5	168
102	4.4	195.5	169
103	4.4	195.5	170

STATION 191				(190M.)		3/FEB/76		536 GPT	
LAT= 73.1136N		LONG= 147.0315W		UTRK= 1.		LGRK= 1.		LGRK= 0.	
ELEV= 0.6		6.2		NVER=		NVER=		NVER=	
DPT	SPD	DRN	DPT	SPD	DRN	DPT	SPD	DRN	DPT
0	0.0	0.0	67	5.7	145.0	134	4.9	143.3	143.3
1	0.0	0.0	68	5.9	145.5	135	4.9	143.3	143.3
2	0.0	0.0	69	6.0	145.9	136	4.9	143.3	143.3
3	0.0	0.0	70	6.1	146.3	137	4.9	143.3	143.3
4	0.0	0.0	71	6.2	146.7	138	5.5	149.5	149.5
5	5.9	148.8	72	5.7	147.3	139	5.5	150.0	150.0
6	5.9	149.3	73	5.6	147.5	140	5.5	150.5	150.5
7	5.9	150.0	74	5.6	147.8	141	5.5	151.1	151.1
8	5.9	151.1	75	5.6	148.0	142	5.5	151.3	151.3
9	5.9	152.2	76	5.6	148.5	143	5.5	151.5	151.5
10	5.9	153.3	77	5.6	149.0	144	5.5	151.9	151.9
11	5.9	154.4	78	5.6	149.5	145	5.5	152.2	152.2
12	5.9	155.5	79	5.6	150.0	146	5.5	152.5	152.5
13	5.9	156.6	80	5.6	150.5	147	5.5	152.8	152.8
14	5.9	157.7	81	5.6	151.0	148	5.5	153.1	153.1
15	5.9	158.8	82	5.6	151.5	149	5.5	153.4	153.4
16	5.9	159.9	83	5.6	152.0	150	5.5	153.7	153.7
17	5.9	161.0	84	5.6	152.5	151	5.5	154.0	154.0
18	5.9	162.1	85	5.6	153.0	152	5.5	154.3	154.3
19	5.9	163.2	86	5.6	153.5	153	5.5	154.6	154.6
20	5.9	164.3	87	5.6	154.0	154	5.5	154.9	154.9
21	5.9	165.4	88	5.6	154.5	155	5.5	155.2	155.2
22	5.9	166.5	89	5.6	155.0	156	5.5	155.5	155.5
23	5.9	167.6	90	5.6	155.5	157	5.5	155.8	155.8
24	5.9	168.7	91	5.6	156.0	158	5.5	156.1	156.1
25	5.9	169.8	92	5.6	156.5	159	5.5	156.4	156.4
26	5.9	170.9	93	5.6	157.0	160	5.5	156.7	156.7
27	5.9	172.0	94	5.6	157.5	161	5.5	157.0	157.0
28	5.9	173.1	95	5.6	158.0	162	5.5	157.3	157.3
29	5.9	174.2	96	5.6	158.5	163	5.5	157.6	157.6
30	5.9	175.3	97	5.6	159.0	164	5.5	157.9	157.9
31	5.9	176.4	98	5.6	159.5	165	5.5	158.2	158.2
32	5.9	177.5	99	5.6	160.0	166	5.5	158.5	158.5
33	5.9	178.6	100	5.6	160.5	167	5.5	158.8	158.8
34	5.9	179.7	101	5.6	161.0	168	5.5	159.1	159.1
35	5.9	180.8	102	5.6	161.5	169	5.5	159.4	159.4
36	5.9	181.9	103	5.6	162.0	170	5.5	159.7	159.7
37	5.9	183.0	104	5.6	162.5	171	5.5	160.0	160.0
38	5.9	184.1	105	5.6	163.0	172	5.5	160.3	160.3
39	5.9	185.2	106	5.6	163.5	173	5.5	160.6	160.6
40	5.9	186.3	107	5.6	164.0	174	5.5	160.9	160.9
41	5.9	187.4	108	5.6	164.5				

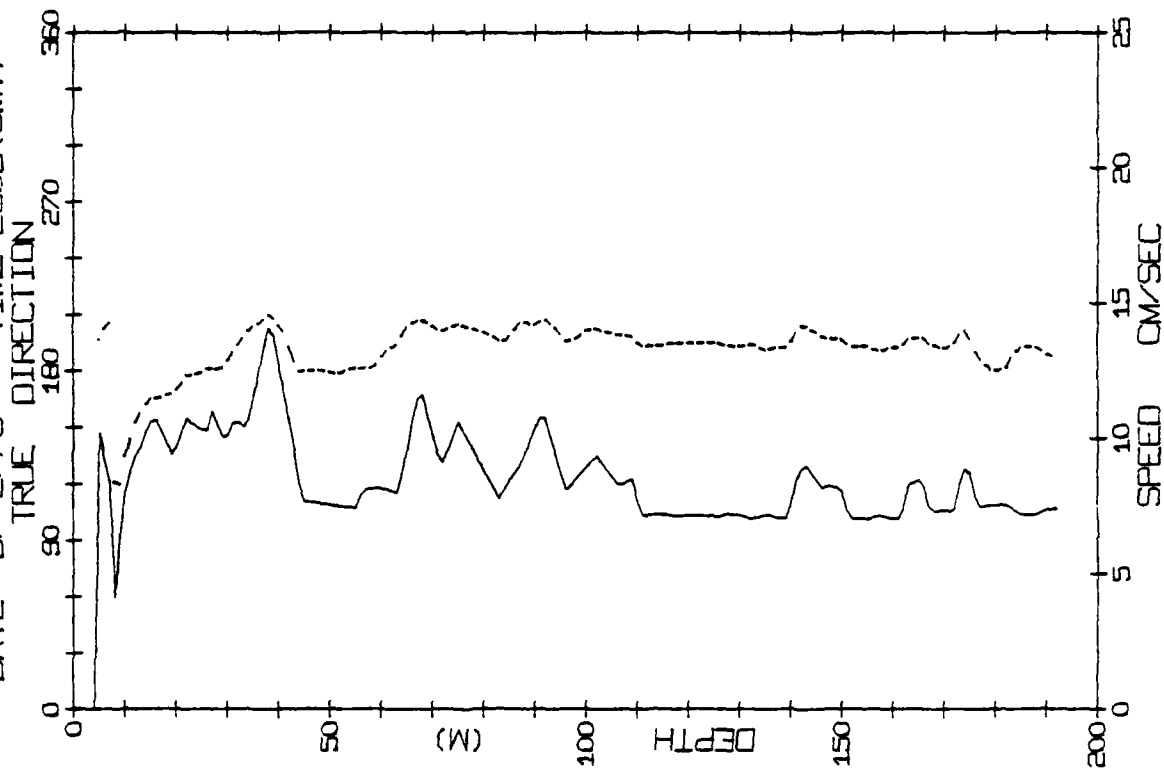
CAMP CARIBOU
DATE 3/ 2/76

STATION 195
TIME 2301 (GMT)

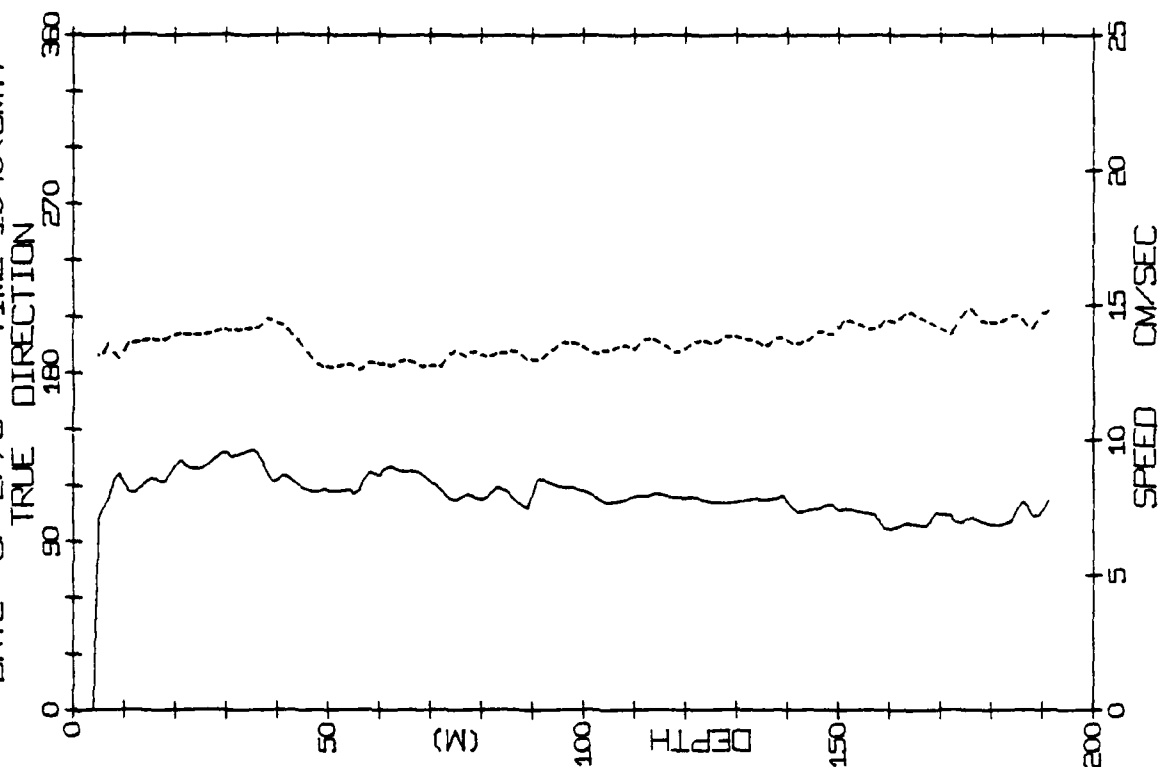


CAMP CARIBOU
DATE 5/ 2/76

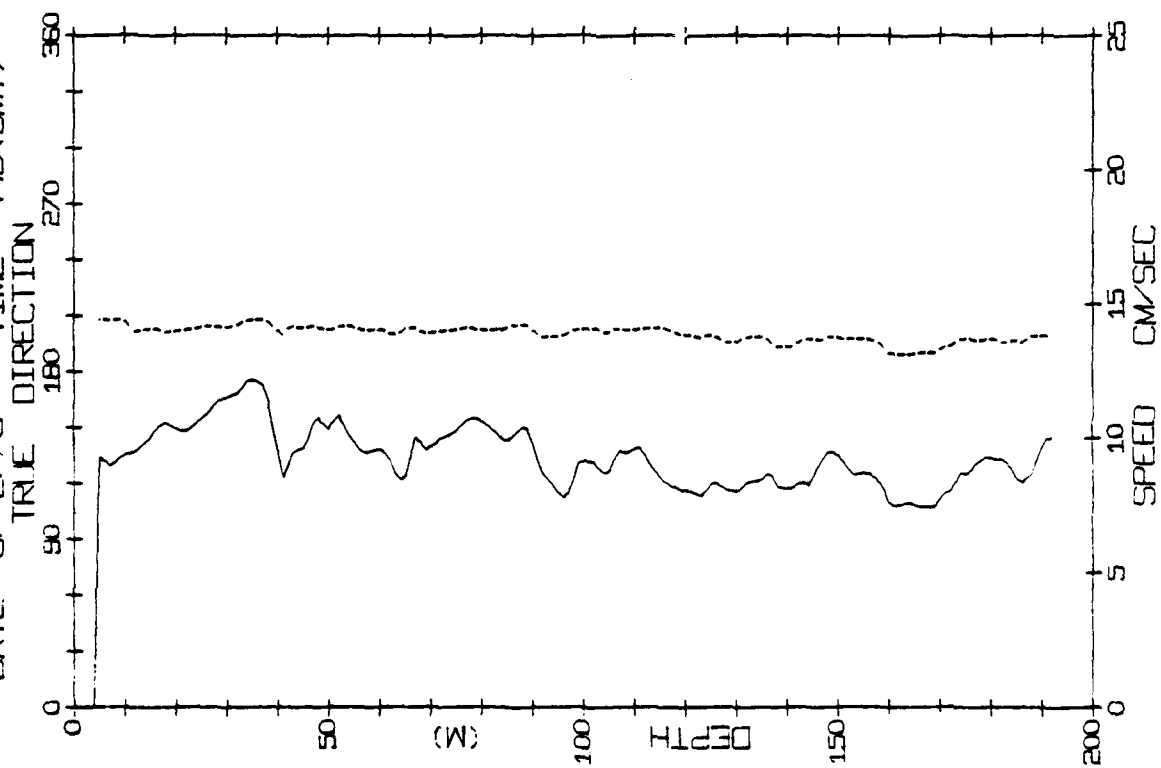
STATION 204
TIME 2305 (GMT)



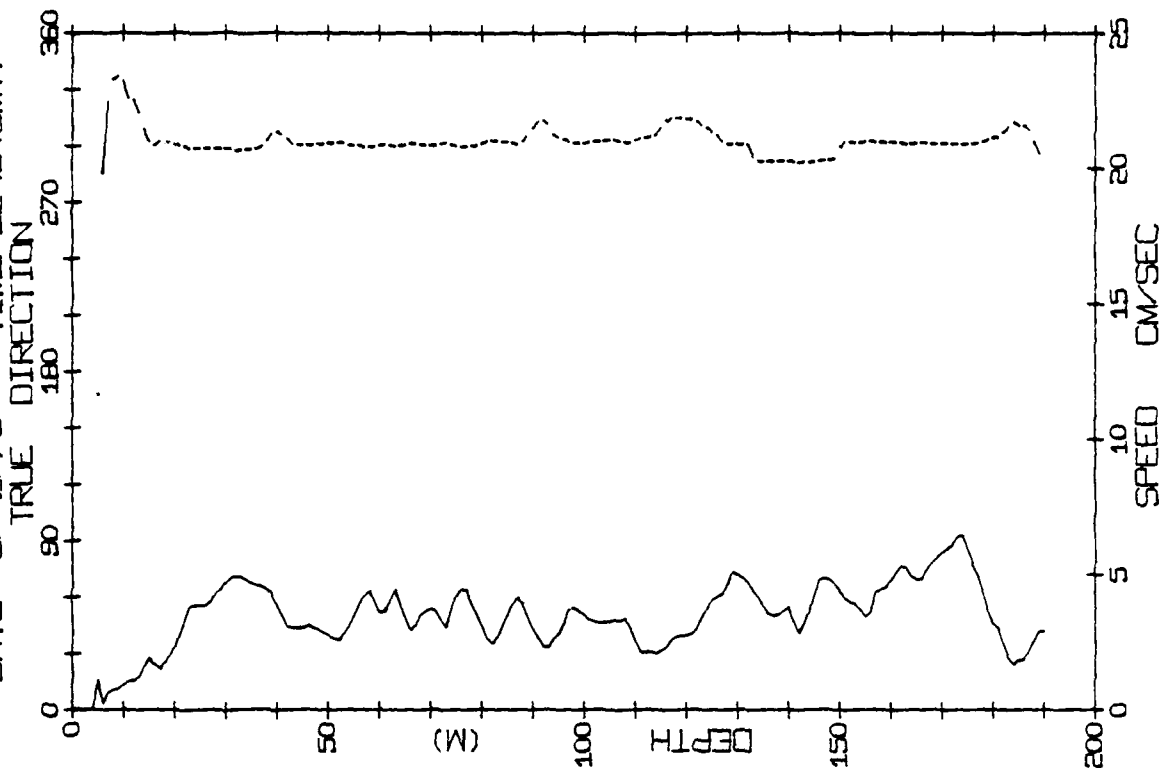
CAMP CARIBOU STATION 205
DATE 6/2/76 TIME 1040 (GMT)



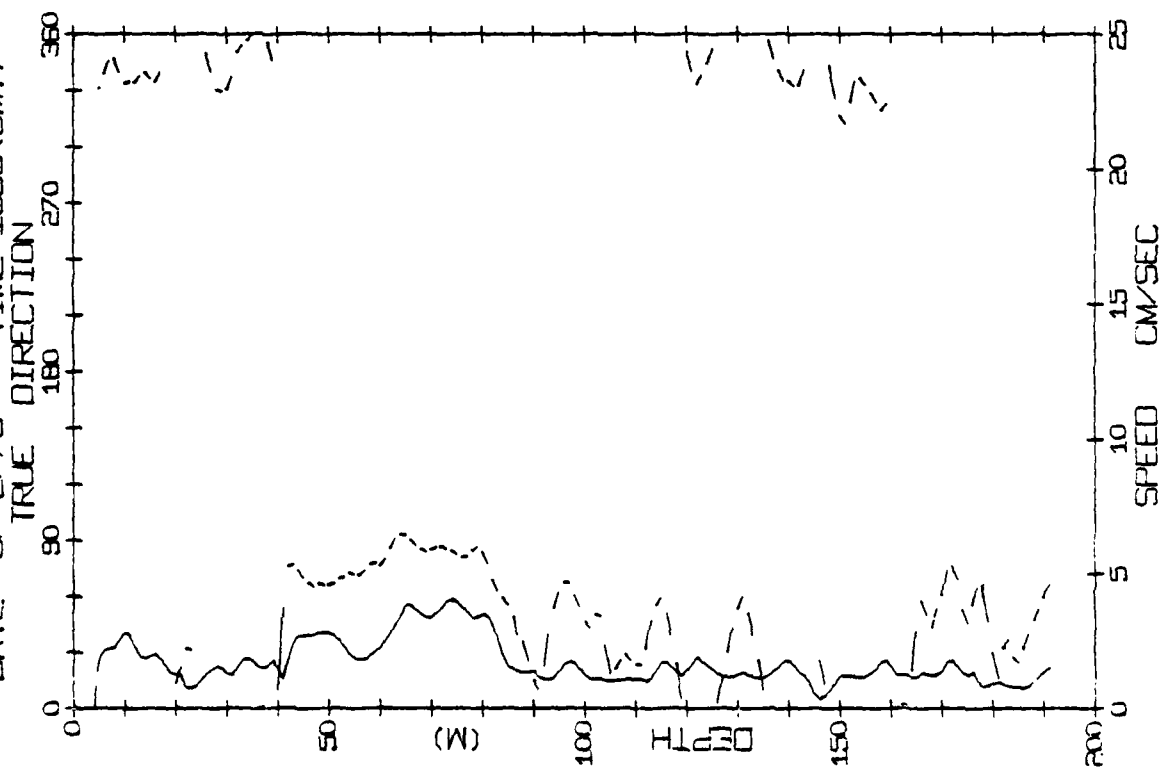
CAMP CARIBOU STATION 205
DATE 6/2/76 TIME 449 (GMT)

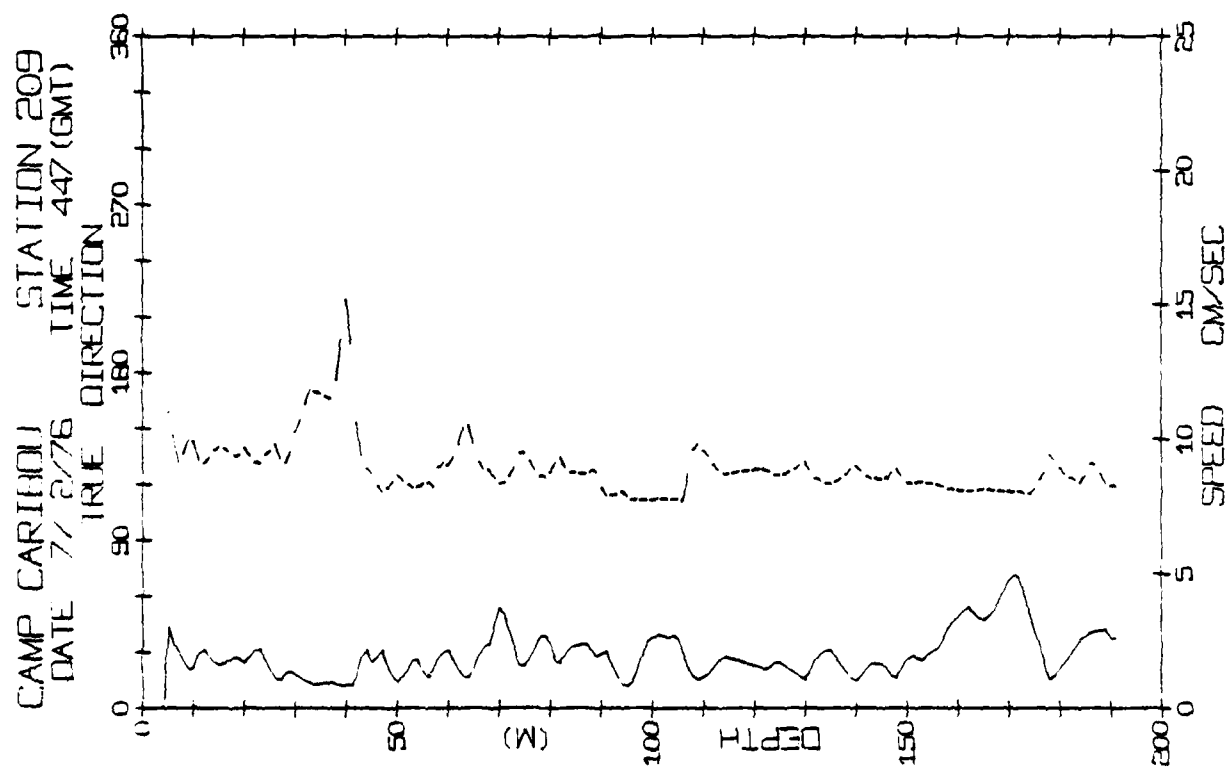
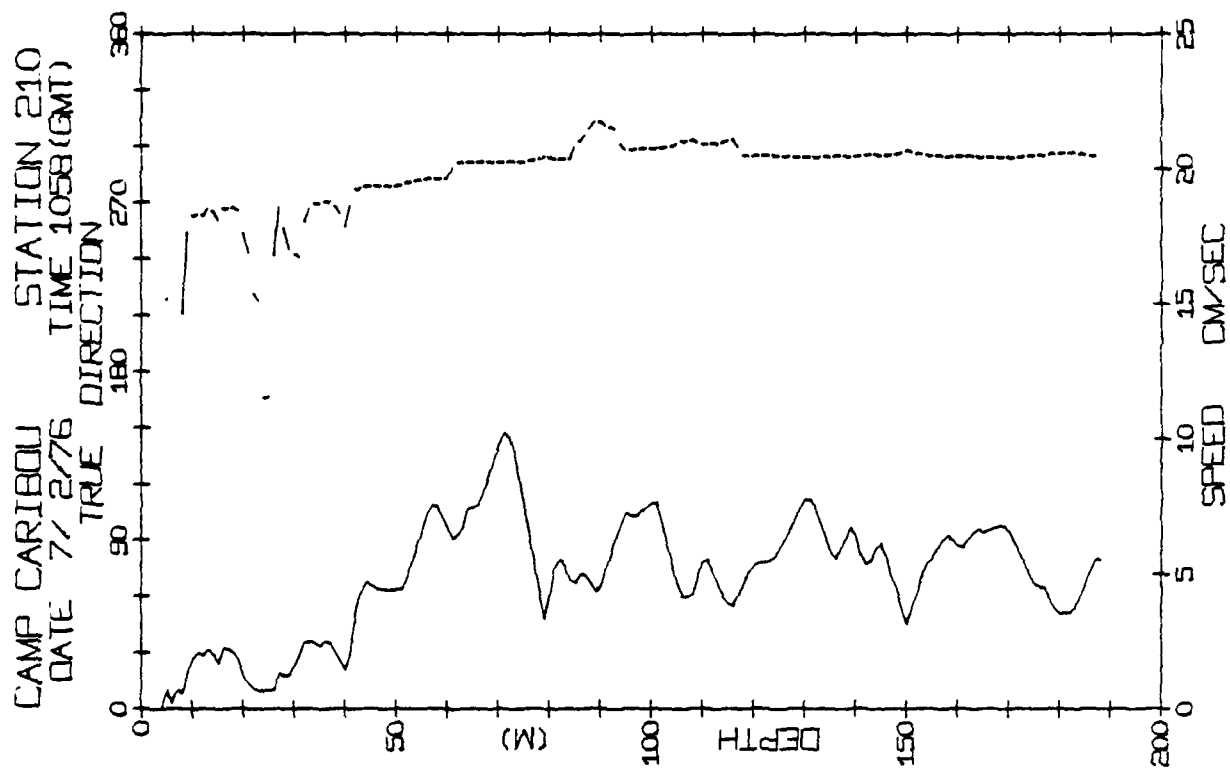


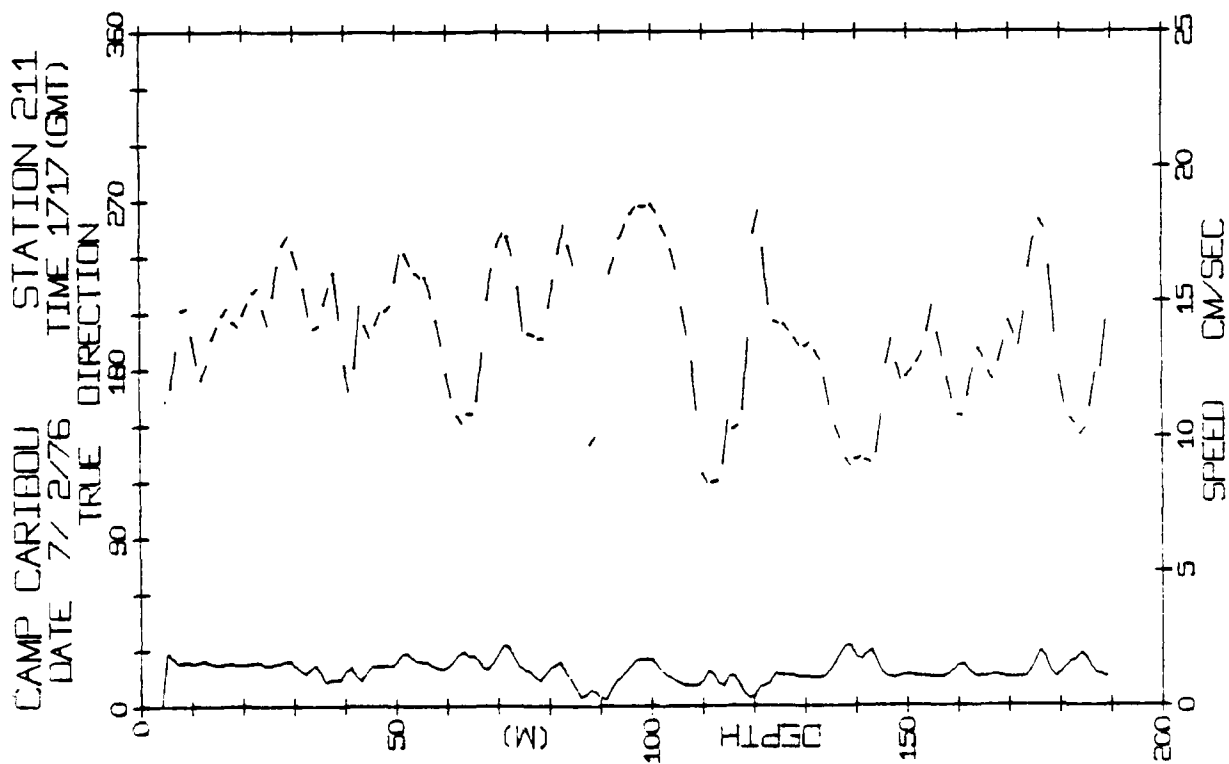
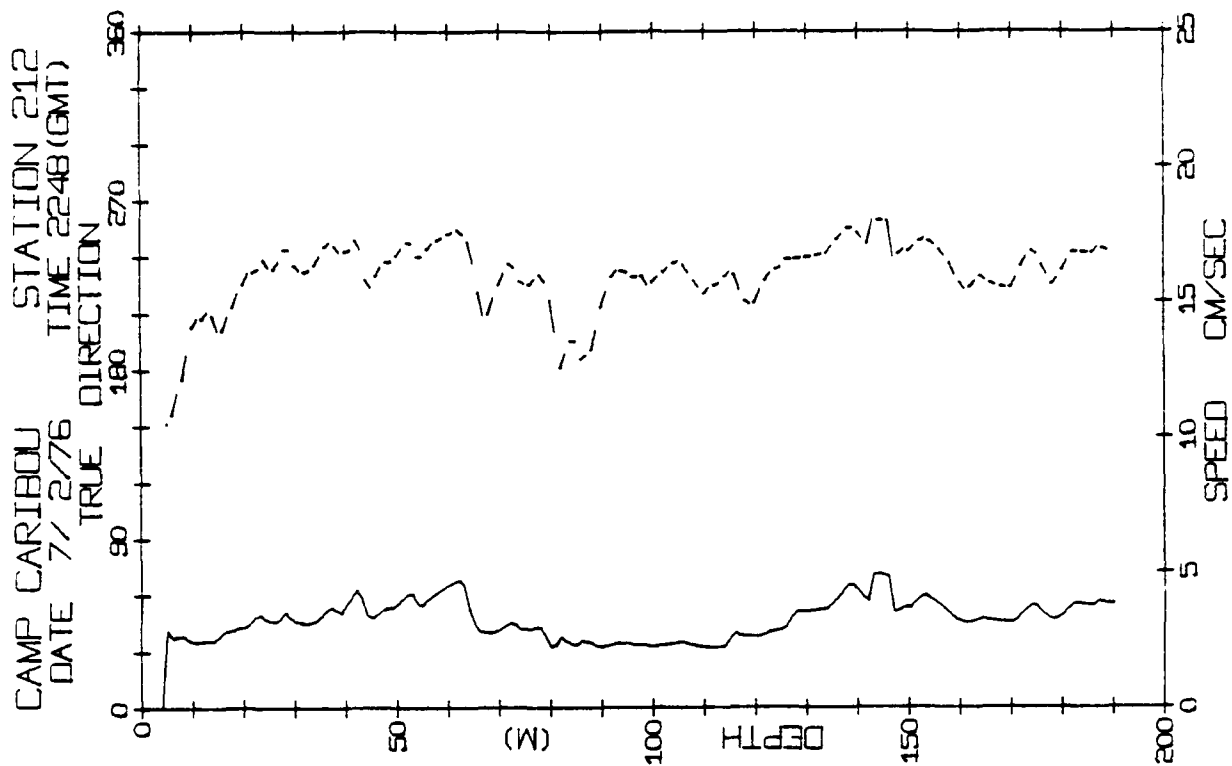
CAMP CARIBOU STATION 208
DATE 6/2/76 TIME 2248(GMT)

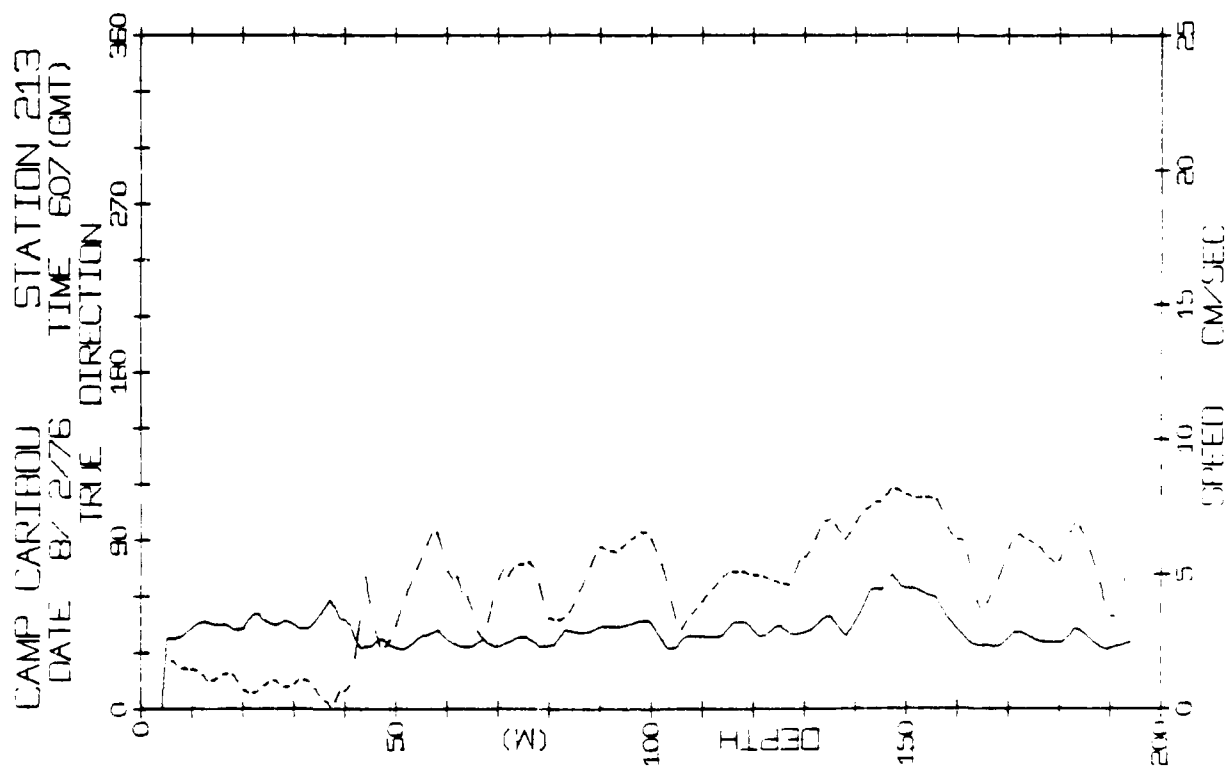
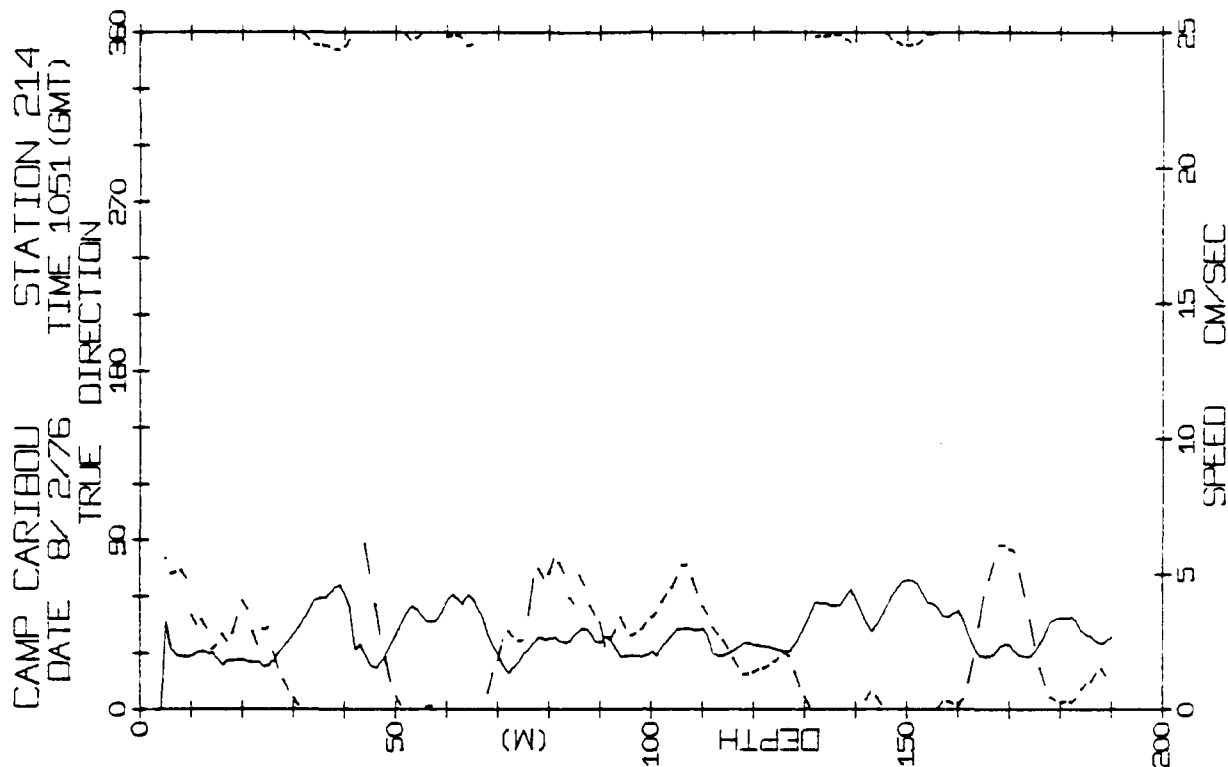


CAMP CARIBOU STATION 207
DATE 6/2/76 TIME 1653(GMT)









AD-A082 212

LAMONT-DOHERTY GEOLOGICAL OBSERVATORY PALISADES N Y F/6 8/3
ARCTIC ICE DYNAMICS JOINT EXPERIMENT (ATDJEX) 1975-1976, PHYSIC--ETC(U)
FEB 80 T O MANLEY, K HUNKINS, W TIEMANN N00014-76-C-0004
LOGO-CU-4-80-VOL-1 NL

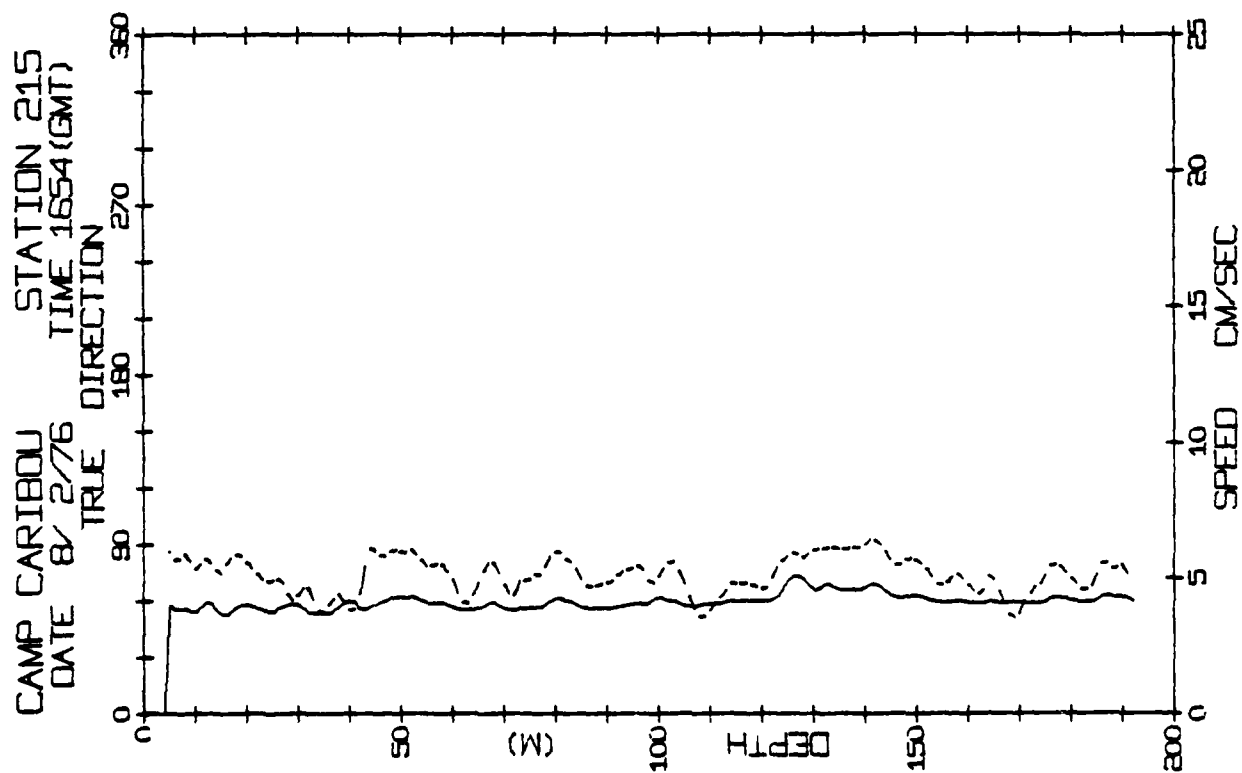
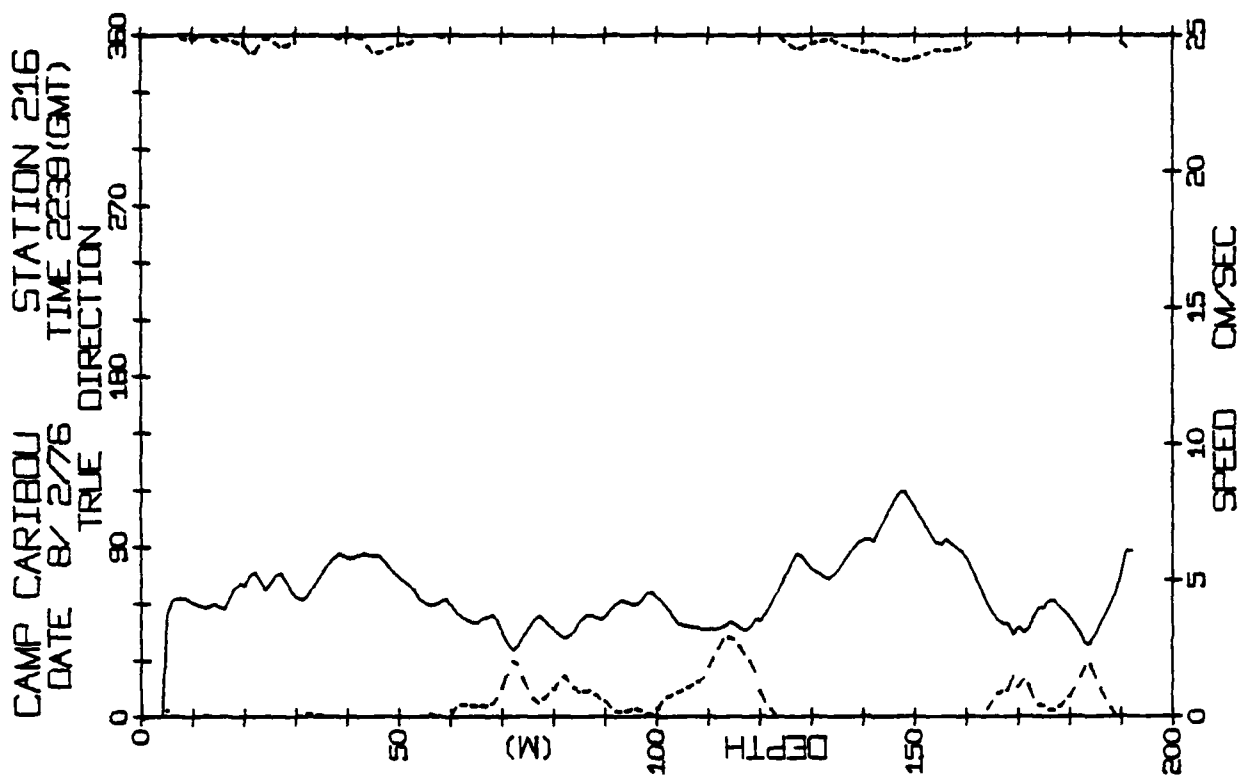
UNCLASSIFIED

30-3

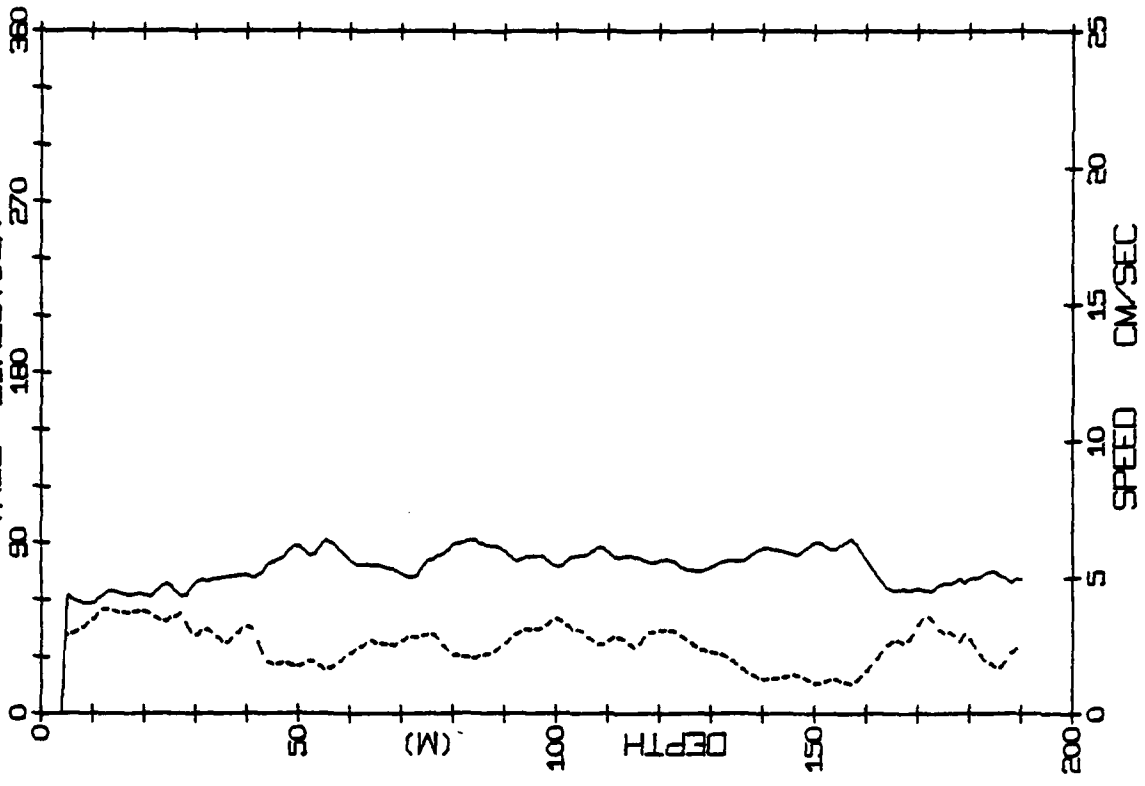
AD
ADNS 212



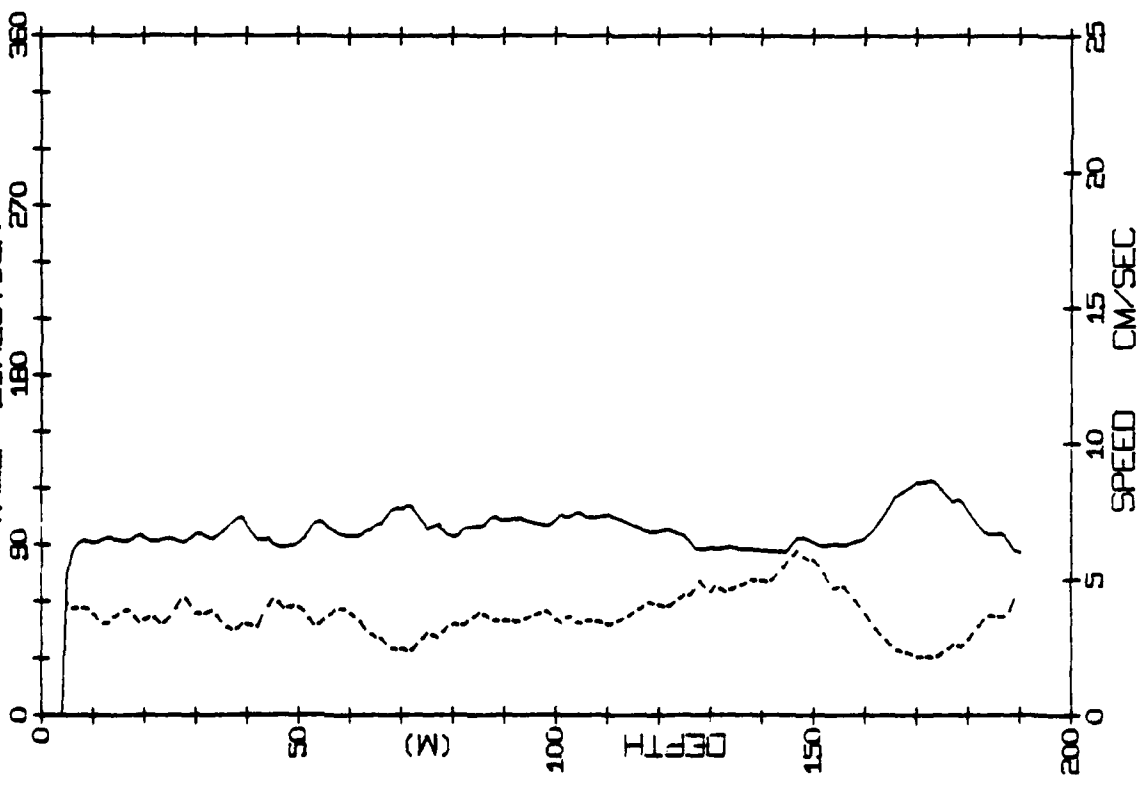
END
DATE
FILMED
4-80
DTIC



CAMP CARIBOU STATION 218
 DATE 9/2/76 TIME 1045 (GMT)
 TRUE DIRECTION



CAMP CARIBOU STATION 217
 DATE 9/2/76 TIME 447 (GMT)
 TRUE DIRECTION

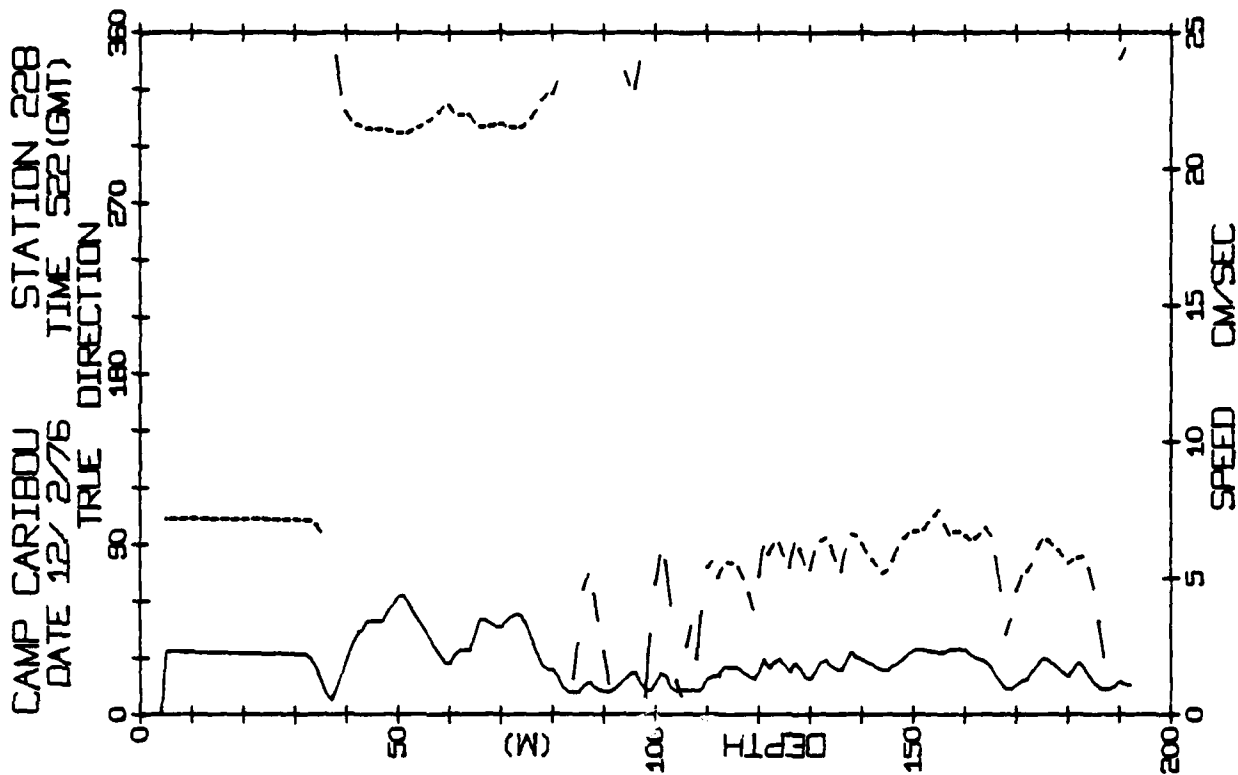
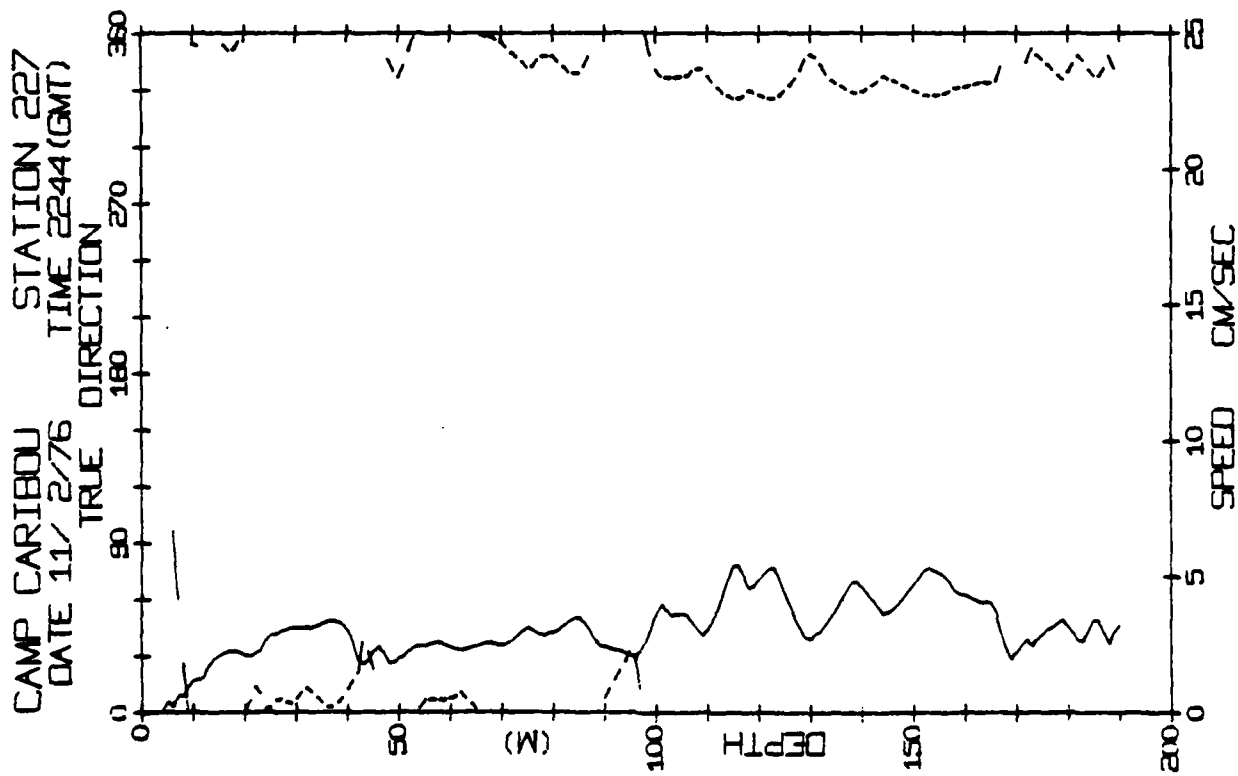


CARIBOU STATION 21H (190M.) 9/FEB/76 1045 GMT
 LAT= 72.9332N LONG= 143.3608W LLEN= 0. LGEN= 0.
 NLEVEL= -2.0 ELEVEL= 4.9 NVER= 0. EVEN= 0.

DPT	SPD	DRN	DPT	SPD	DRN
0	0.0	0	134	5.3	36.3
1	0.0	0	135	5.3	36.3
2	0.0	0	136	5.3	36.3
3	0.0	0	137	5.3	36.3
4	0.0	0	138	5.3	36.3
5	0.0	0	139	5.3	36.3
6	0.0	0	140	5.3	36.3
7	0.0	0	141	5.3	36.3
8	0.0	0	142	5.3	36.3
9	0.0	0	143	5.3	36.3
10	0.0	0	144	5.3	36.3
11	0.0	0	145	5.3	36.3
12	0.0	0	146	5.3	36.3
13	0.0	0	147	5.3	36.3
14	0.0	0	148	5.3	36.3
15	0.0	0	149	5.3	36.3
16	0.0	0	150	5.3	36.3
17	0.0	0	151	5.3	36.3
18	0.0	0	152	5.3	36.3
19	0.0	0	153	5.3	36.3
20	0.0	0	154	5.3	36.3
21	0.0	0	155	5.3	36.3
22	0.0	0	156	5.3	36.3
23	0.0	0	157	5.3	36.3
24	0.0	0	158	5.3	36.3
25	0.0	0	159	5.3	36.3
26	0.0	0	160	5.3	36.3
27	0.0	0	161	5.3	36.3
28	0.0	0	162	5.3	36.3
29	0.0	0	163	5.3	36.3
30	0.0	0	164	5.3	36.3
31	0.0	0	165	5.3	36.3
32	0.0	0	166	5.3	36.3
33	0.0	0	167	5.3	36.3
34	0.0	0	168	5.3	36.3
35	0.0	0	169	5.3	36.3
36	0.0	0	170	5.3	36.3
37	0.0	0	171	5.3	36.3
38	0.0	0	172	5.3	36.3
39	0.0	0	173	5.3	36.3
40	0.0	0	174	5.3	36.3
41	0.0	0	175	5.3	36.3
42	0.0	0	176	5.3	36.3
43	0.0	0	177	5.3	36.3
44	0.0	0	178	5.3	36.3
45	0.0	0	179	5.3	36.3
46	0.0	0	180	5.3	36.3
47	0.0	0	181	5.3	36.3
48	0.0	0	182	5.3	36.3
49	0.0	0	183	5.3	36.3
50	0.0	0	184	5.3	36.3
51	0.0	0	185	5.3	36.3
52	0.0	0	186	5.3	36.3
53	0.0	0	187	5.3	36.3
54	0.0	0	188	5.3	36.3
55	0.0	0	189	5.3	36.3
56	0.0	0	190	5.3	36.3
57	0.0	0	191	5.3	36.3
58	0.0	0	192	5.3	36.3
59	0.0	0	193	5.3	36.3
60	0.0	0	194	5.3	36.3
61	0.0	0	195	5.3	36.3
62	0.0	0	196	5.3	36.3
63	0.0	0	197	5.3	36.3
64	0.0	0	198	5.3	36.3
65	0.0	0	199	5.3	36.3
66	0.0	0	200	5.3	36.3

CARIBOU STATION 21H (190M.) 9/FEB/76 447 GMT
 LAT= 72.9332N LONG= 143.3608W LLEN= 0. LGEN= 0.
 NLEVEL= -2.0 ELEVEL= 4.9 NVER= 0. EVEN= 0.

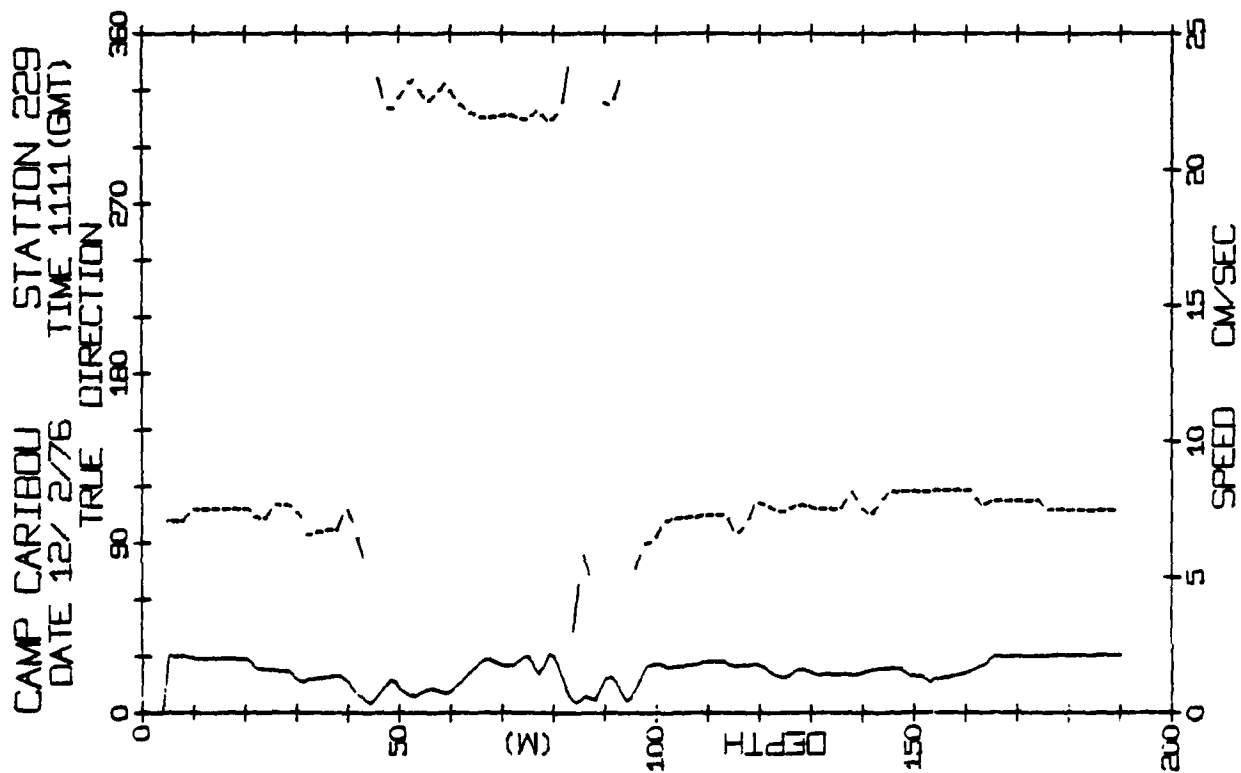
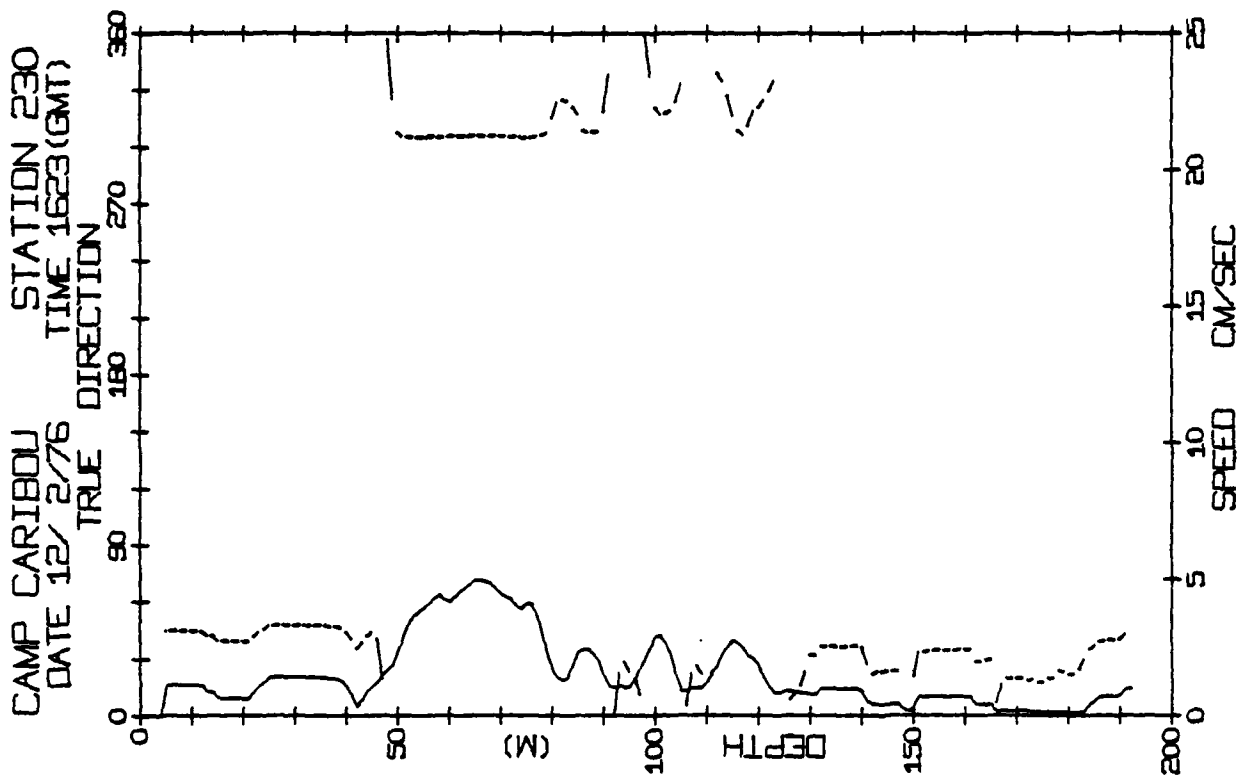
DPT	SPD	DRN	DPT	SPD	DRN
0	0.0	0	134	5.3	36.3
1	0.0	0	135	5.3	36.3
2	0.0	0	136	5.3	36.3
3	0.0	0	137	5.3	36.3
4	0.0	0	138	5.3	36.3
5	0.0	0	139	5.3	36.3
6	0.0	0	140	5.3	36.3
7	0.0	0	141	5.3	36.3
8	0.0	0	142	5.3	36.3
9	0.0	0	143	5.3	36.3
10	0.0	0	144	5.3	36.3
11	0.0	0	145	5.3	36.3
12	0.0	0	146	5.3	36.3
13	0.0	0	147	5.3	36.3
14	0.0	0	148	5.3	36.3
15	0.0	0	149	5.3	36.3
16	0.0	0	150	5.3	36.3
17	0.0	0	151	5.3	36.3
18	0.0	0	152	5.3	36.3
19	0.0	0	153	5.3	36.3
20	0.0	0	154	5.3	36.3
21	0.0	0	155	5.3	36.3
22	0.0	0	156	5.3	36.3
23	0.0	0	157	5.3	36.3
24	0.0	0	158	5.3	36.3
25	0.0	0	159	5.3	36.3
26	0.0	0	160	5.3	36.3
27	0.0	0	161	5.3	36.3
28	0.0	0	162	5.3	36.3
29	0.0	0	163	5.3	36.3
30	0.0	0	164	5.3	36.3
31	0.0	0	165	5.3	36.3
32	0.0	0	166	5.3	36.3
33	0.0	0	167	5.3	36.3
34	0.0	0	168	5.3	36.3
35	0.0	0	169	5.3	36.3
36	0.0	0	170	5.3	36.3
37	0.0	0	171	5.3	36.3
38	0.0	0	172	5.3	36.3
39	0.0	0	173	5.3	36.3
40	0.0	0	174	5.3	36.3
41	0.0	0	175	5.3	36.3
42	0.0	0	176	5.3	36.3
43	0.0	0	177	5.3	36.3
44	0.0	0	178	5.3	36.3
45	0.0	0	179	5.3	36.3
46	0.0	0	180	5.3	36.3
47	0.0	0	181	5.3	36.3
48	0.0	0	182	5.3	36.3
49	0.0	0	183	5.3	36.3
50	0.0	0	184	5.3	36.3
51	0.0	0	185	5.3	36.3
52	0.0	0	186	5.3	36.3
53	0.0	0	187	5.3	36.3
54	0.0	0	188	5.3	36.3
55	0.0	0	189	5.3	36.3
56	0.0	0	190	5.3	36.3
57	0.0	0	191	5.3	36.3
58	0.0	0	192	5.3	36.3
59	0.0	0	193	5.3	36.3
60	0.0	0	194	5.3	36.3
61	0.0	0	195	5.3	36.3
62	0.0	0	196	5.3	36.3
63	0.0	0	197	5.3	36.3
64	0.0	0	198	5.3	36.3
65	0.0	0	199	5.3	36.3
66	0.0	0	200	5.3	36.3



CARINUM STATION 22N (192M.) 12/FFH/76 522 GMT
 LONG= 72.9259N LONG= 143.3065W LTIME= 1. LGEM= 2.
 AVELEV= -1.4 ELEV= 4.4 NVEV= 0. EVEM= 0.

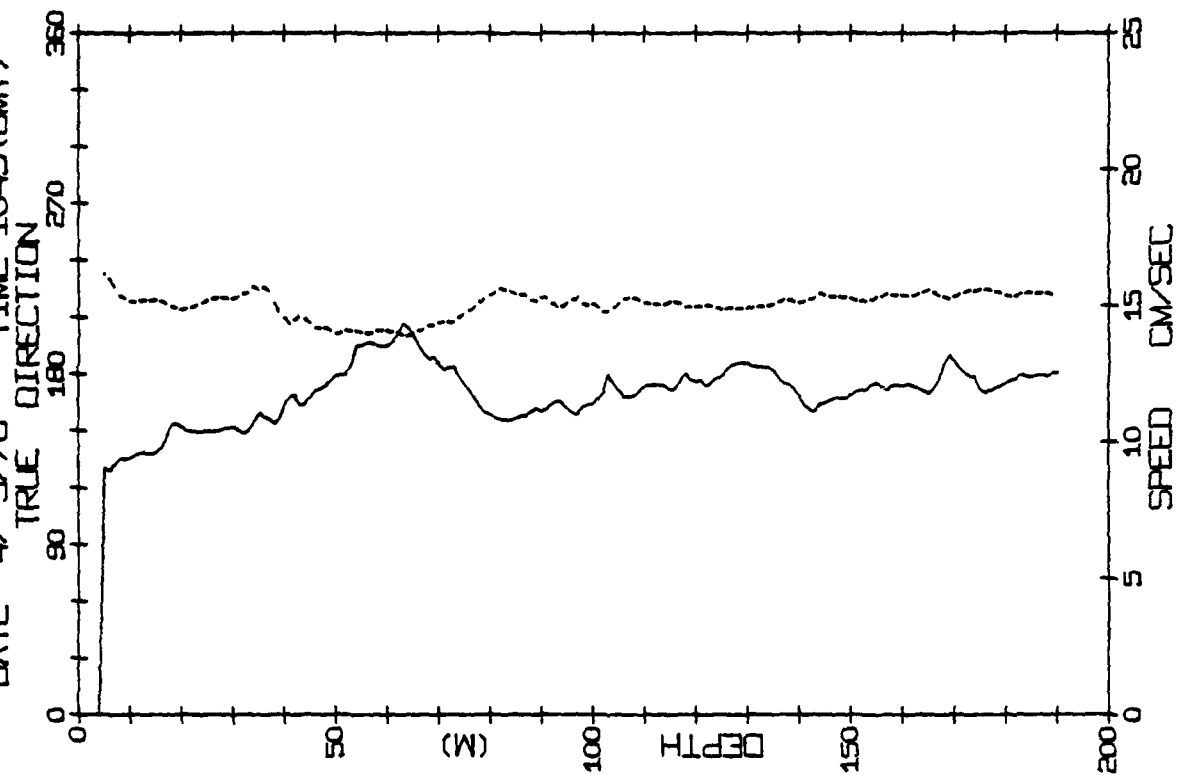
CANIM000 STATION 227 (190M.) 11/FEB/76 2244 GMT
 LAT= 72.4274N LONG= 143.3173E LTRN= 1. LGEM= 2.
 NVELO= -0.2 EVEL= 3.5 NVELN= 0. EVFN= 0.

[illegible][illegible]

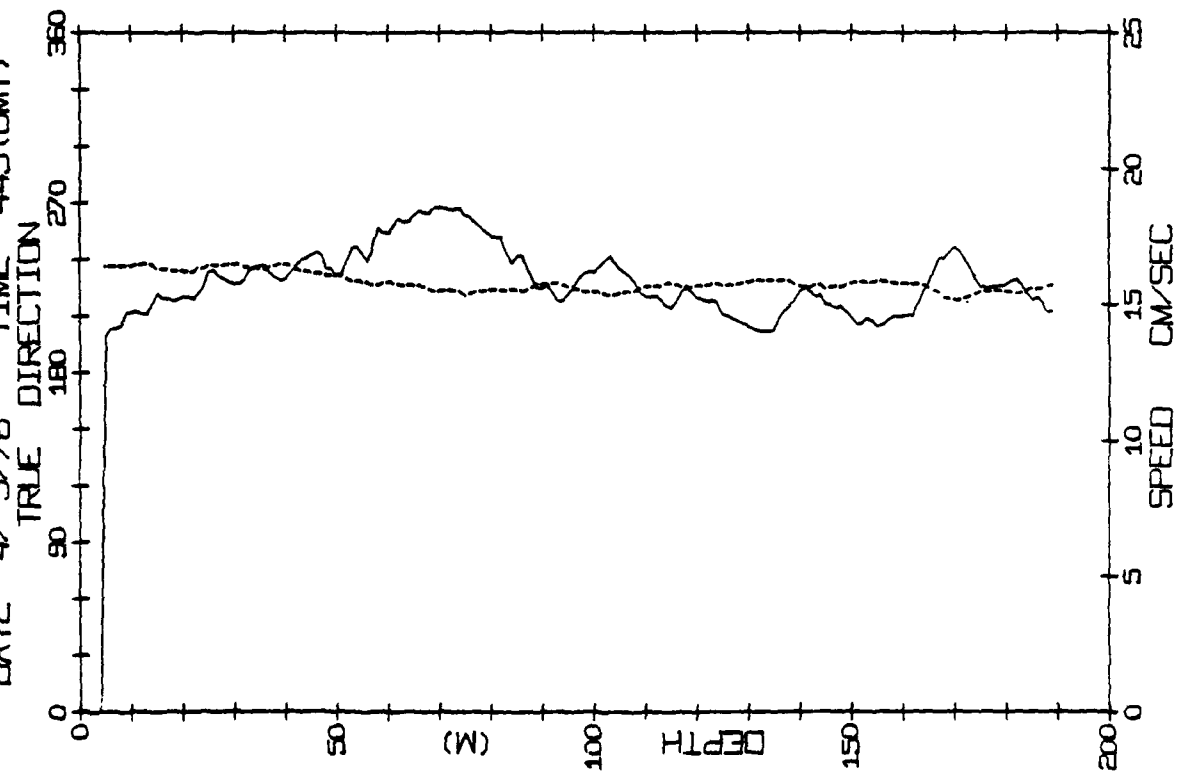


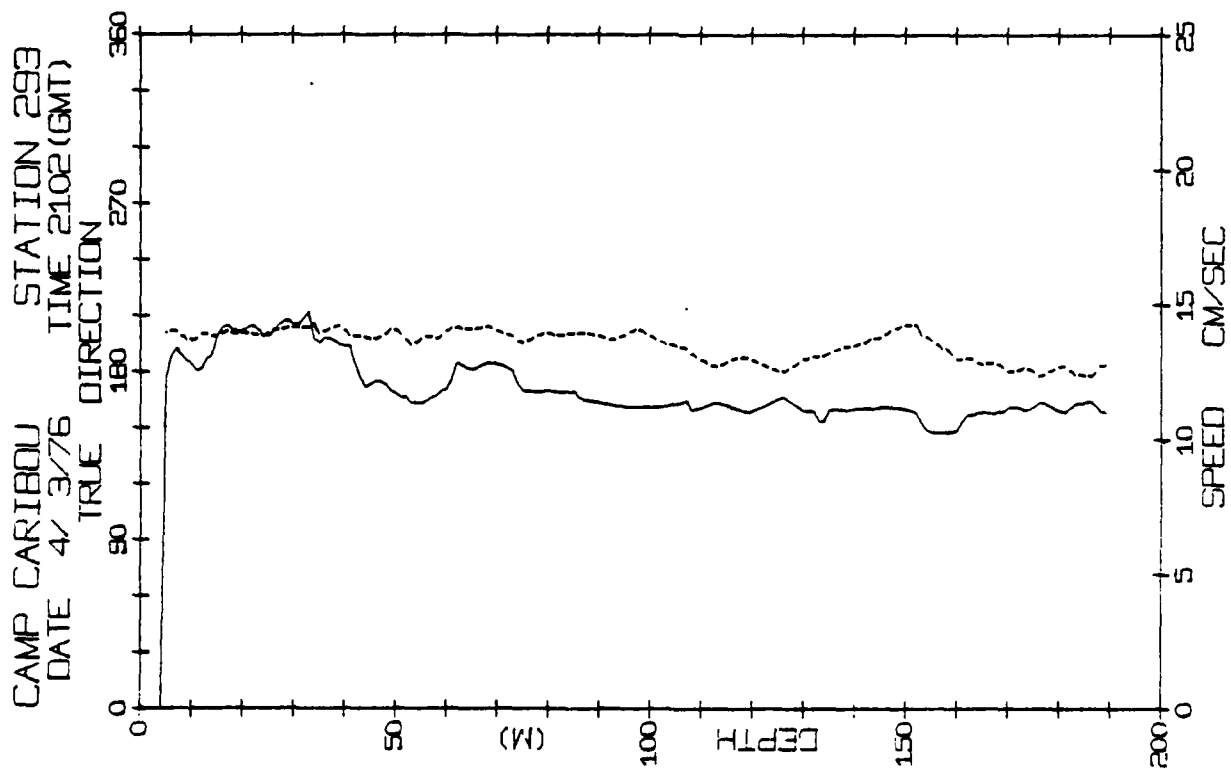
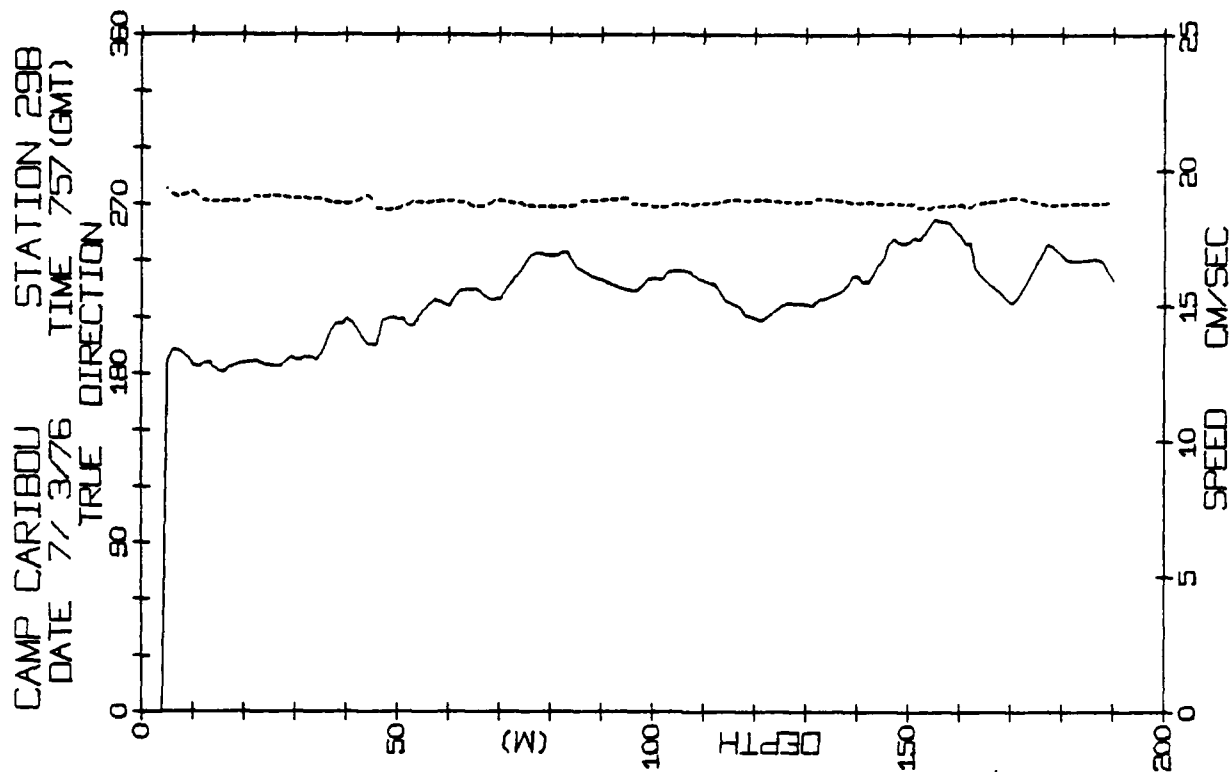
CAKIHOU STATION 229 (190M.) 12/FEB/76 1623 GMT									
LATE=72.9202N LONG=143.2860W LTER= 1. IGR= 0.									
NVEH= -2.0 EVEL= 3.6 NVEH= 0. EVEL= 0.									
DPT	SPD	DRN	DPT	SPD	DRN	DPT	SPD	DRN	SPD
0	0.0	999	0	0.0	999	0	0.0	999	0.0
1	0.0	999	1	0.0	999	1	0.0	999	0.0
2	0.0	999	2	0.0	999	2	0.0	999	0.0
3	0.0	999	3	0.0	999	3	0.0	999	0.0
4	0.0	999	4	0.0	999	4	0.0	999	0.0
5	0.0	999	5	0.0	999	5	0.0	999	0.0
6	0.0	999	6	0.0	999	6	0.0	999	0.0
7	0.0	999	7	0.0	999	7	0.0	999	0.0
8	0.0	999	8	0.0	999	8	0.0	999	0.0
9	0.0	999	9	0.0	999	9	0.0	999	0.0
10	0.0	999	10	0.0	999	10	0.0	999	0.0
11	0.0	999	11	0.0	999	11	0.0	999	0.0
12	0.0	999	12	0.0	999	12	0.0	999	0.0
13	0.0	999	13	0.0	999	13	0.0	999	0.0
14	0.0	999	14	0.0	999	14	0.0	999	0.0
15	0.0	999	15	0.0	999	15	0.0	999	0.0
16	0.0	999	16	0.0	999	16	0.0	999	0.0
17	0.0	999	17	0.0	999	17	0.0	999	0.0
18	0.0	999	18	0.0	999	18	0.0	999	0.0
19	0.0	999	19	0.0	999	19	0.0	999	0.0
20	0.0	999	20	0.0	999	20	0.0	999	0.0
21	0.0	999	21	0.0	999	21	0.0	999	0.0
22	0.0	999	22	0.0	999	22	0.0	999	0.0
23	0.0	999	23	0.0	999	23	0.0	999	0.0
24	0.0	999	24	0.0	999	24	0.0	999	0.0
25	0.0	999	25	0.0	999	25	0.0	999	0.0
26	0.0	999	26	0.0	999	26	0.0	999	0.0
27	0.0	999	27	0.0	999	27	0.0	999	0.0
28	0.0	999	28	0.0	999	28	0.0	999	0.0
29	0.0	999	29	0.0	999	29	0.0	999	0.0
30	0.0	999	30	0.0	999	30	0.0	999	0.0
31	0.0	999	31	0.0	999	31	0.0	999	0.0
32	0.0	999	32	0.0	999	32	0.0	999	0.0
33	0.0	999	33	0.0	999	33	0.0	999	0.0
34	0.0	999	34	0.0	999	34	0.0	999	0.0
35	0.0	999	35	0.0	999	35	0.0	999	0.0
36	0.0	999	36	0.0	999	36	0.0	999	0.0
37	0.0	999	37	0.0	999	37	0.0	999	0.0
38	0.0	999	38	0.0	999	38	0.0	999	0.0
39	0.0	999	39	0.0	999	39	0.0	999	0.0
40	0.0	999	40	0.0	999	40	0.0	999	0.0
41	0.0	999	41	0.0	999	41	0.0	999	0.0
42	0.0	999	42	0.0	999	42	0.0	999	0.0
43	0.0	999	43	0.0	999	43	0.0	999	0.0
44	0.0	999	44	0.0	999	44	0.0	999	0.0
45	0.0	999	45	0.0	999	45	0.0	999	0.0
46	0.0	999	46	0.0	999	46	0.0	999	0.0
47	0.0	999	47	0.0	999	47	0.0	999	0.0
48	0.0	999	48	0.0	999	48	0.0	999	0.0
49	0.0	999	49	0.0	999	49	0.0	999	0.0
50	0.0	999	50	0.0	999	50	0.0	999	0.0
51	0.0	999	51	0.0	999	51	0.0	999	0.0
52	0.0	999	52	0.0	999	52	0.0	999	0.0
53	0.0	999	53	0.0	999	53	0.0	999	0.0
54	0.0	999	54	0.0	999	54	0.0	999	0.0
55	0.0	999	55	0.0	999	55	0.0	999	0.0
56	0.0	999	56	0.0	999	56	0.0	999	0.0
57	0.0	999	57	0.0	999	57	0.0	999	0.0
58	0.0	999	58	0.0	999	58	0.0	999	0.0
59	0.0	999	59	0.0	999	59	0.0	999	0.0
60	0.0	999	60	0.0	999	60	0.0	999	0.0
61	0.0	999	61	0.0	999	61	0.0	999	0.0
62	0.0	999	62	0.0	999	62	0.0	999	0.0
63	0.0	999	63	0.0	999	63	0.0	999	0.0
64	0.0	999	64	0.0	999	64	0.0	999	0.0
65	0.0	999	65	0.0	999	65	0.0	999	0.0
66	0.0	999	66	0.0	999	66	0.0	999	0.0
67	0.0	999	67	0.0	999	67	0.0	999	0.0
68	0.0	999	68	0.0	999	68	0.0	999	0.0
69	0.0	999	69	0.0	999	69	0.0	999	0.0
70	0.0	999	70	0.0	999	70	0.0	999	0.0
71	0.0	999	71	0.0	999	71	0.0	999	0.0
72	0.0	999	72	0.0	999	72	0.0	999	0.0
73	0.0	999	73	0.0	999	73	0.0	999	0.0
74	0.0	999	74	0.0	999	74	0.0	999	0.0
75	0.0	999	75	0.0	999	75	0.0	999	0.0
76	0.0	999	76	0.0	999	76	0.0	999	0.0
77	0.0	999	77	0.0	999	77	0.0	999	0.0
78	0.0	999	78	0.0	999	78	0.0	999	0.0
79	0.0	999	79	0.0	999	79	0.0	999	0.0
80	0.0	999	80	0.0	999	80	0.0	999	0.0
81	0.0	999	81	0.0	999	81	0.0	999	0.0
82	0.0	999	82	0.0	999	82	0.0	999	0.0
83	0.0	999	83	0.0	999	83	0.0	999	0.0
84	0.0	999	84	0.0	999	84	0.0	999	0.0
85	0.0	999	85	0.0	999	85	0.0	999	0.0
86	0.0	999	86	0.0	999	86	0.0	999	0.0
87	0.0	999	87	0.0	999	87	0.0	999	0.0
88	0.0	999	88	0.0	999	88	0.0	999	0.0
89	0.0	999	89	0.0	999	89	0.0	999	0.0
90	0.0	999	90	0.0	999	90	0.0	999	0.0
91	0.0	999	91	0.0	999	91	0.0	999	0.0
92	0.0	999	92	0.0	999	92	0.0	999	0.0
93	0.0	999	93	0.0	999	93	0.0	999	0.0
94	0.0	999	94	0.0	999	94	0.0	999	0.0
95	0.0	999	95	0.0	999	95	0.0	999	0.0
96	0.0	999	96	0.0	999	96	0.0	999	0.0
97	0.0	999	97	0.0	999	97	0.0	999	0.0
98	0.0	999	98	0.0	999	98	0.0	999	0.0
99	0.0	999	99	0.0	999	99	0.0	999	0.0

CAMP CARIBOU STATION 292
DATE 4/ 3/76 TIME 1049(GMT)

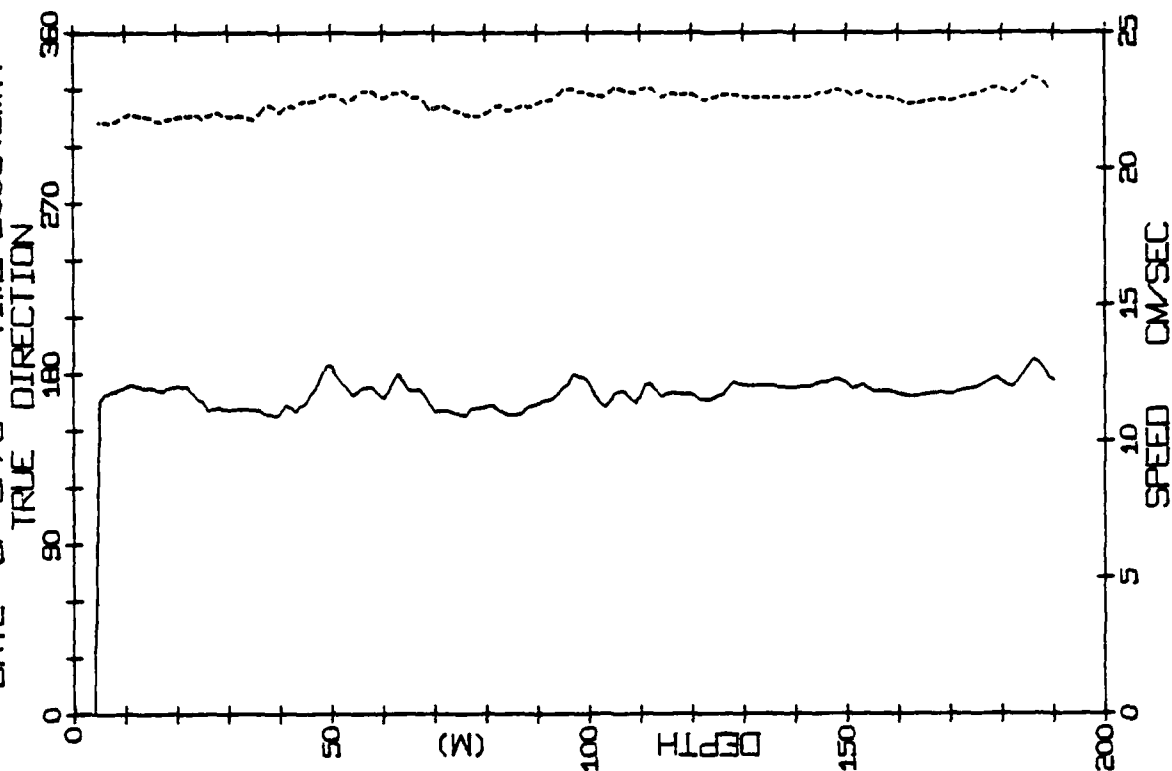


CAMP CARIBOU STATION 291
DATE 4/ 3/76 TIME 445(GMT)

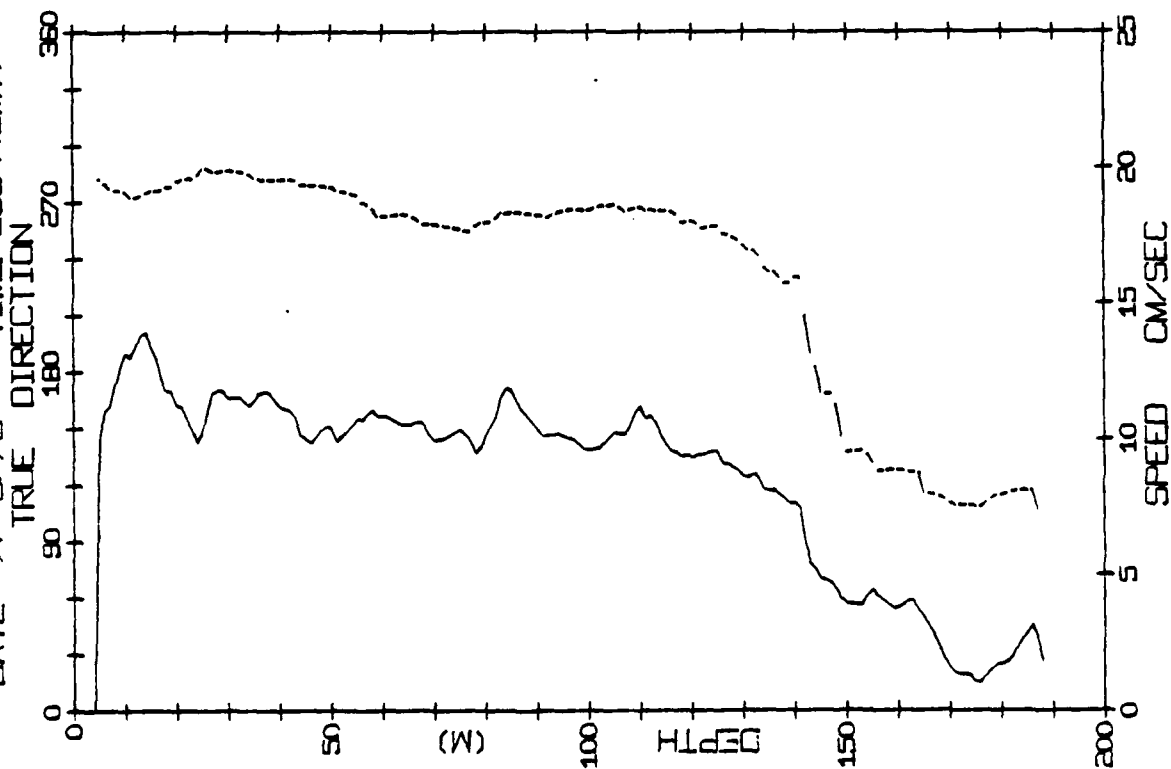




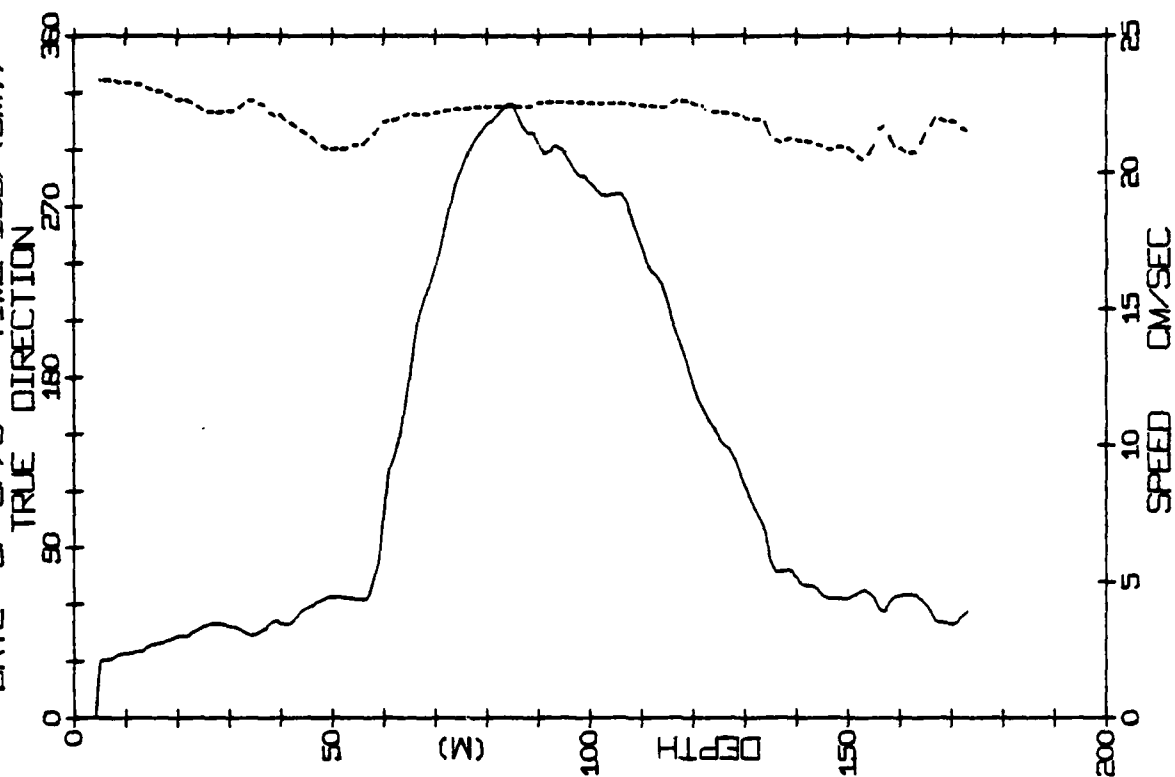
CAMP CARIBOU STATION 301
DATE 8/ 3/76 TIME 2003(GMT)



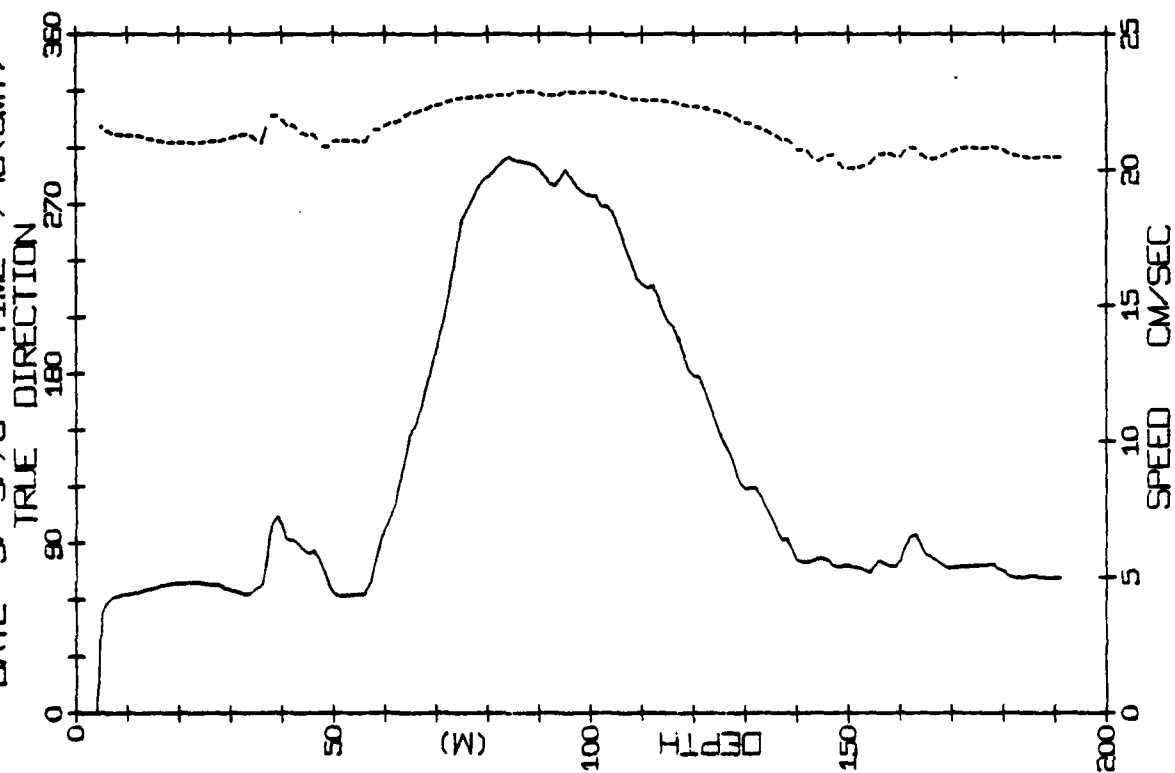
CAMP CARIBOU STATION 299
DATE 7/ 3/76 TIME 1954(GMT)

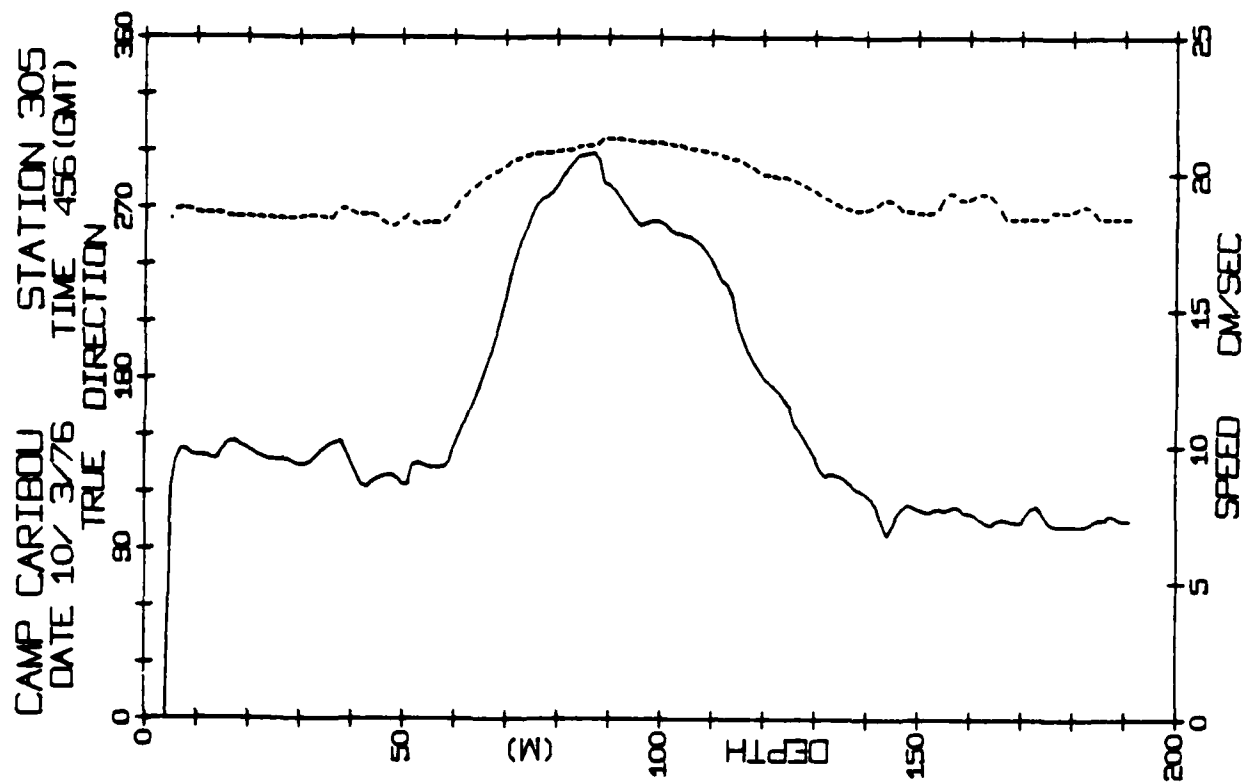
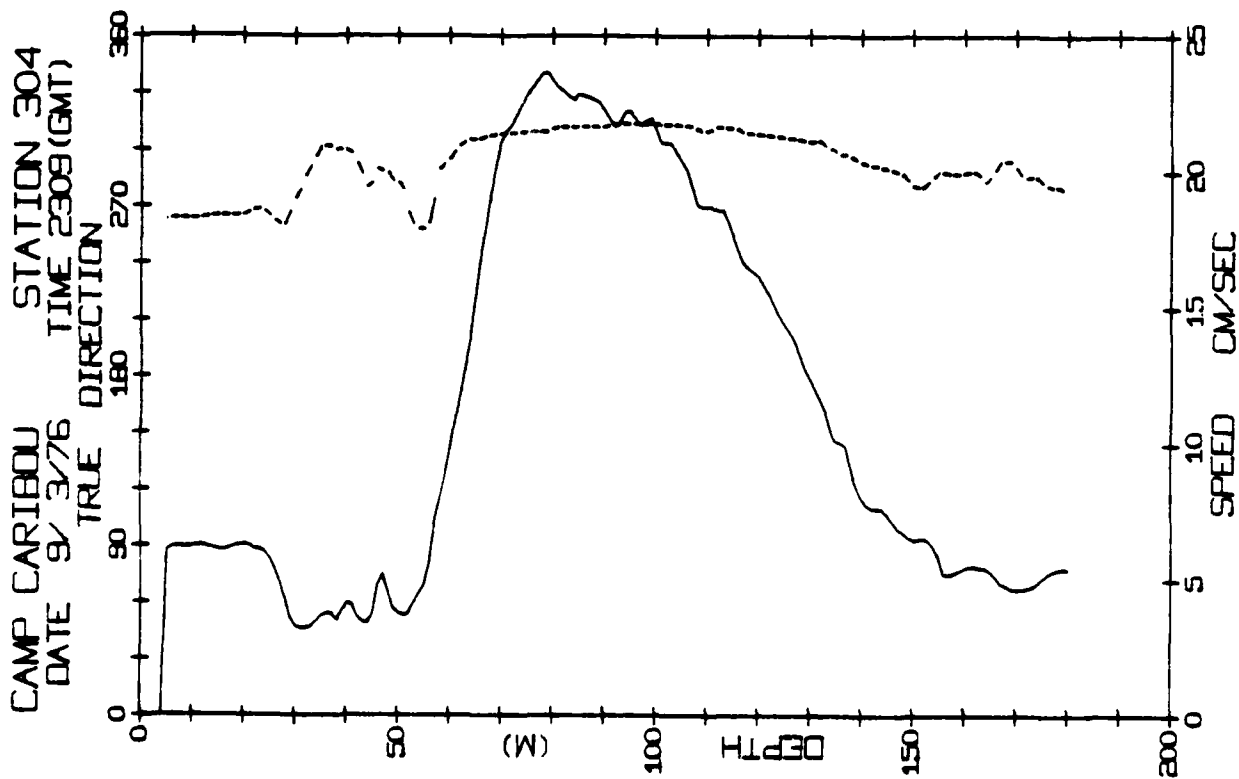


CAMP CARIBOU STATION 303
DATE 9/ 3/76 TIME 1637 (GMT)

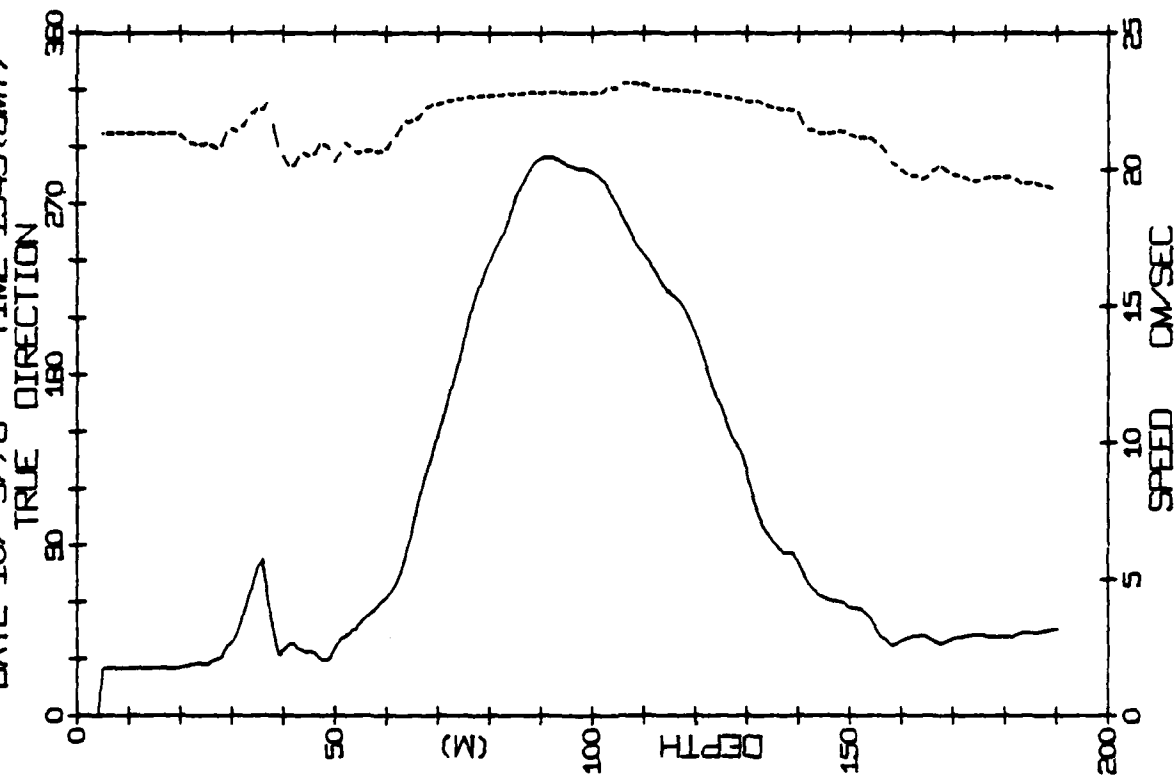


CAMP CARIBOU STATION 302
DATE 9/ 3/76 TIME 748 (GMT)

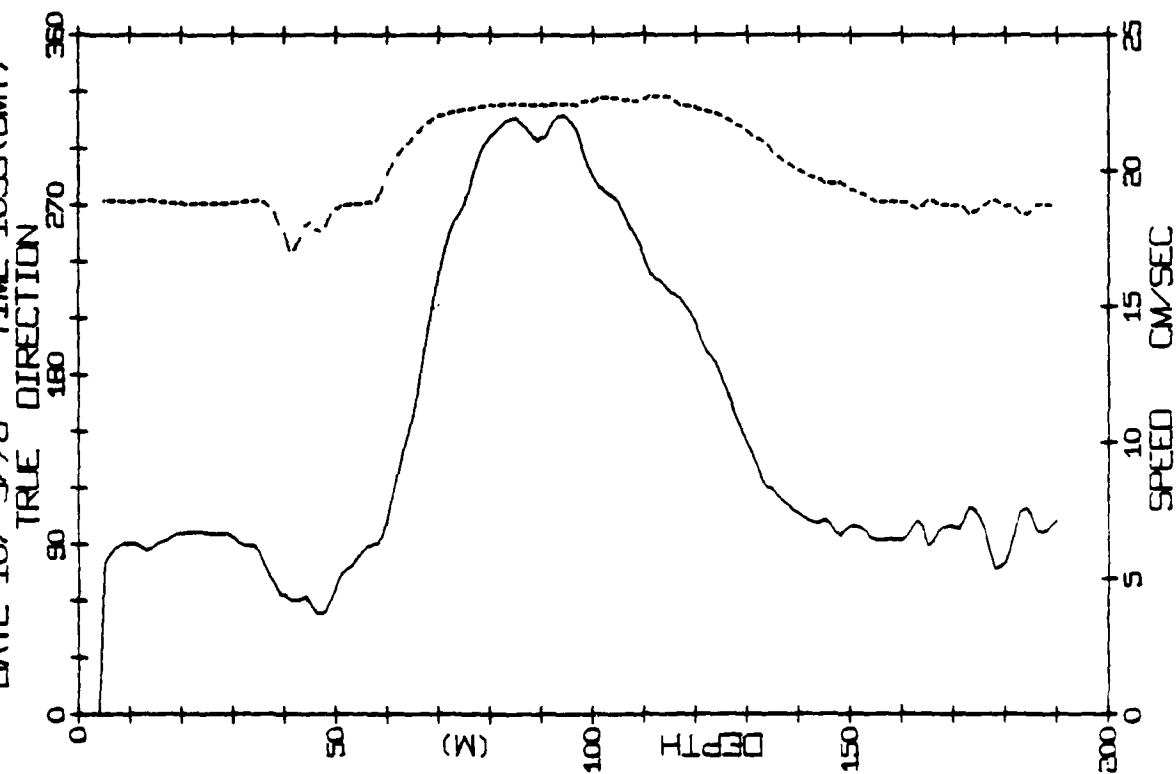


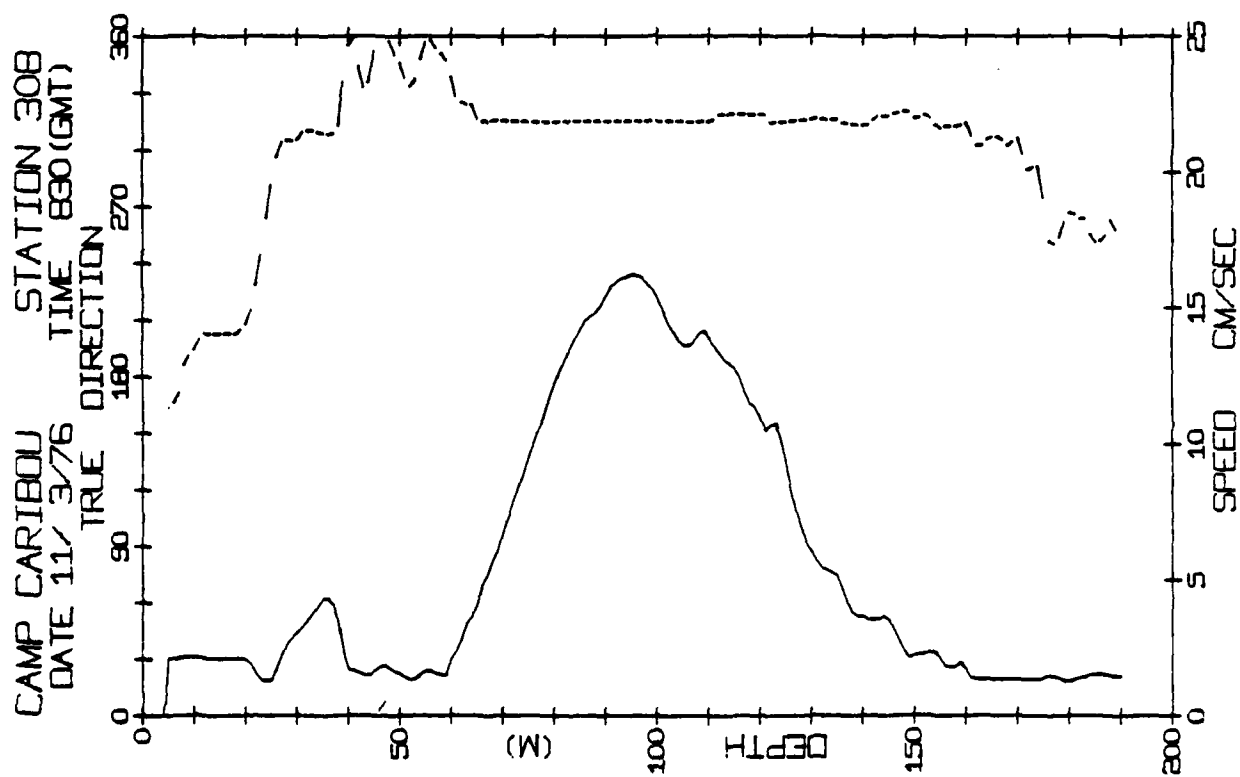
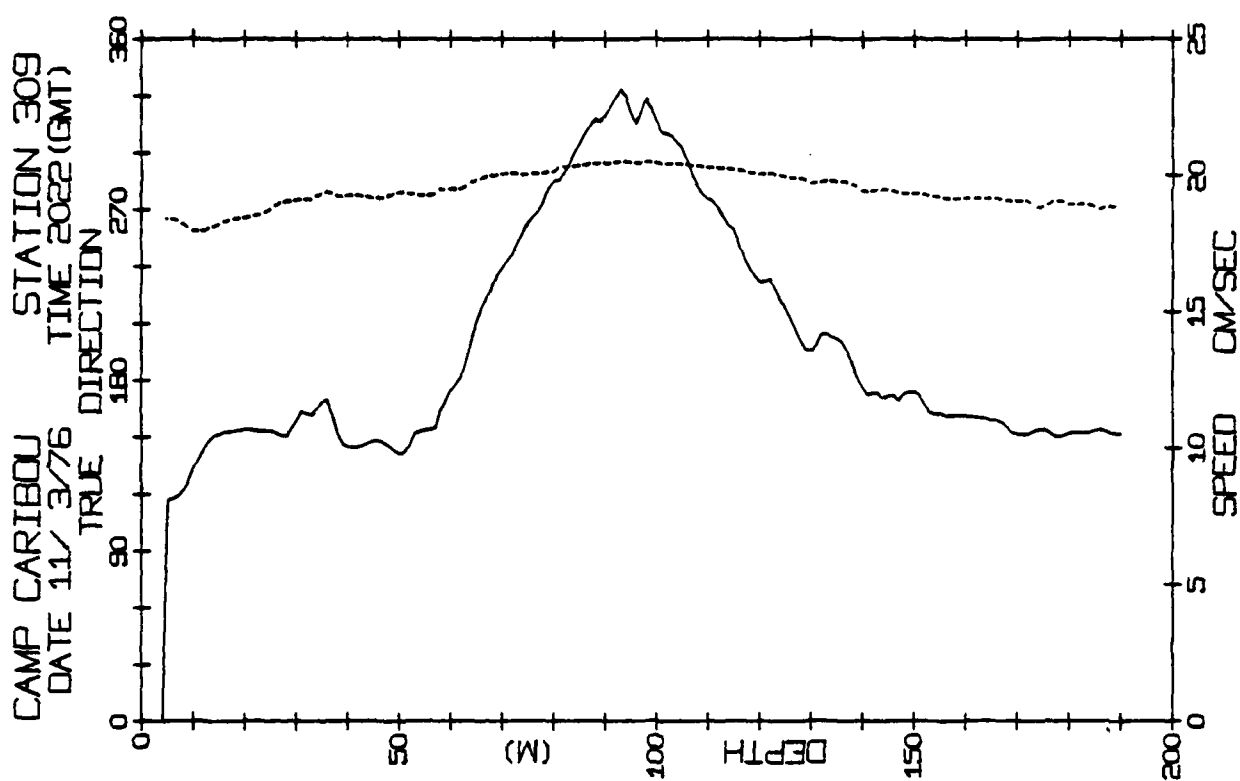


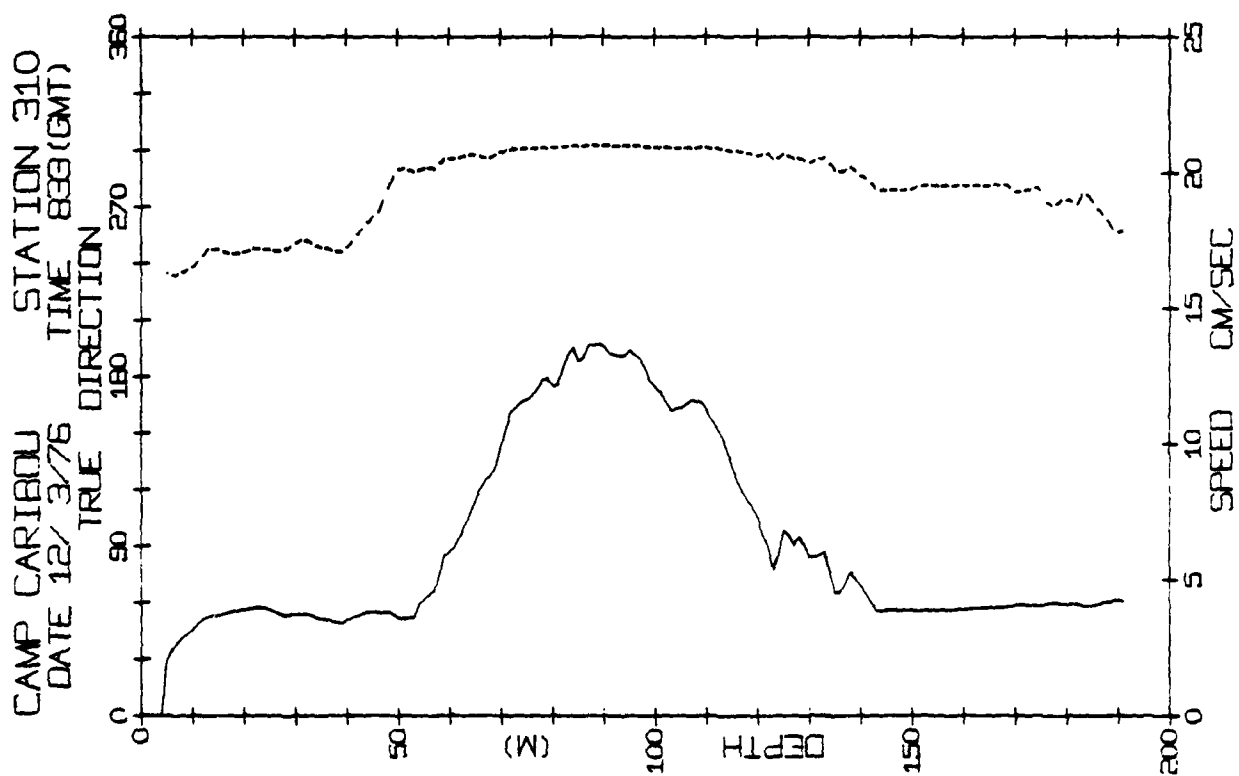
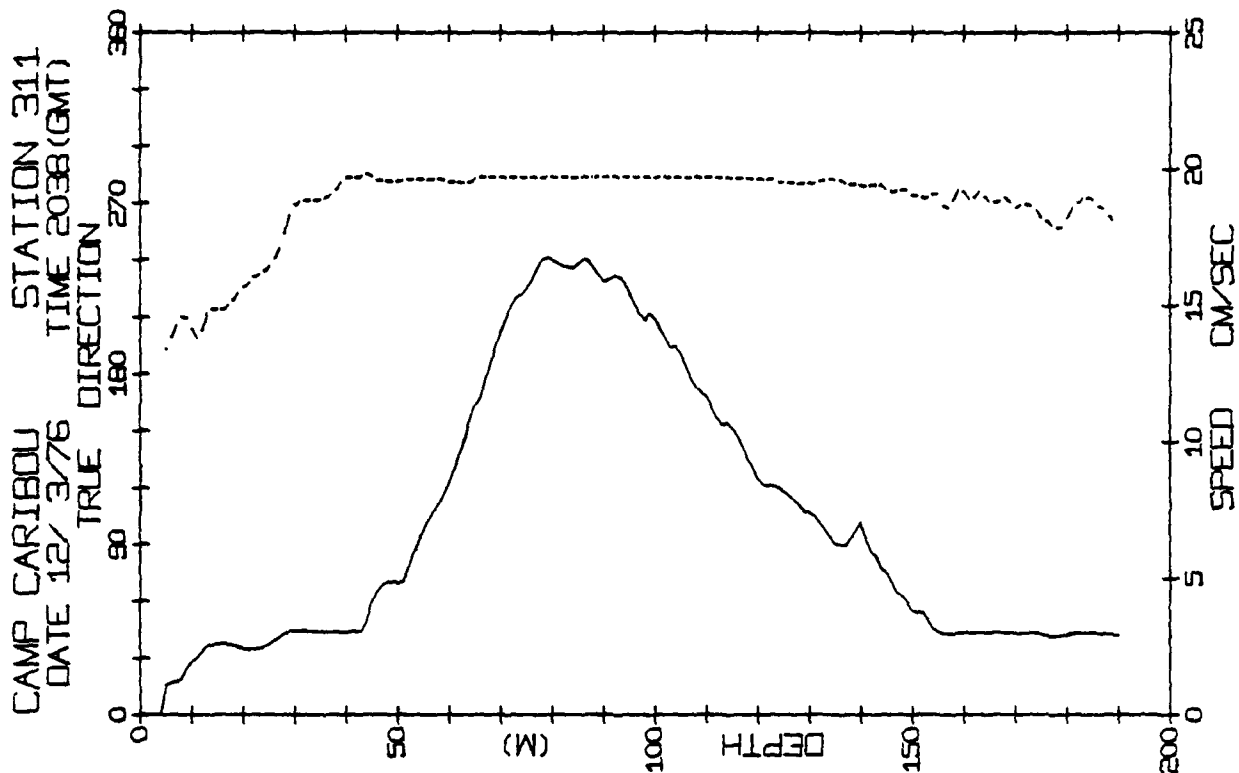
CAMP CARIBOU STATION 307
DATE 10/ 3/76 TIME 1943(GMT)



CAMP CARIBOU STATION 306
DATE 10/ 3/76 TIME 1033(GMT)

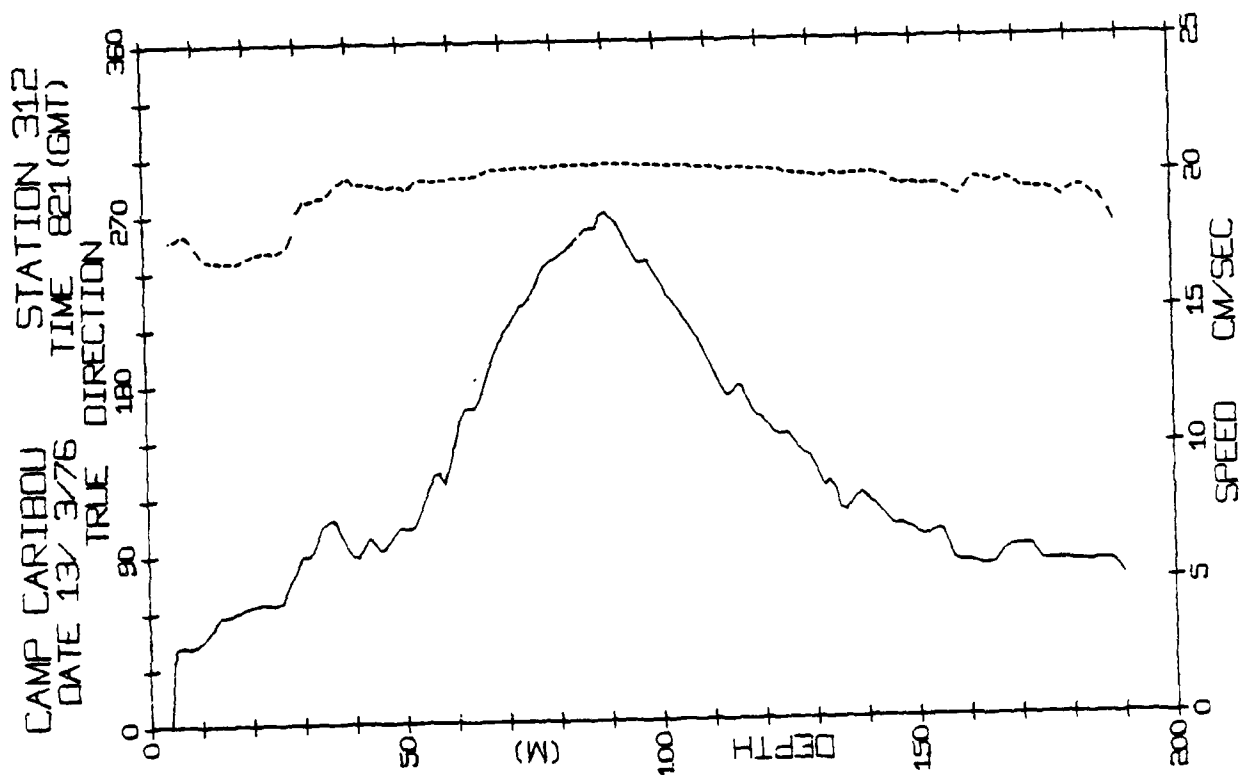
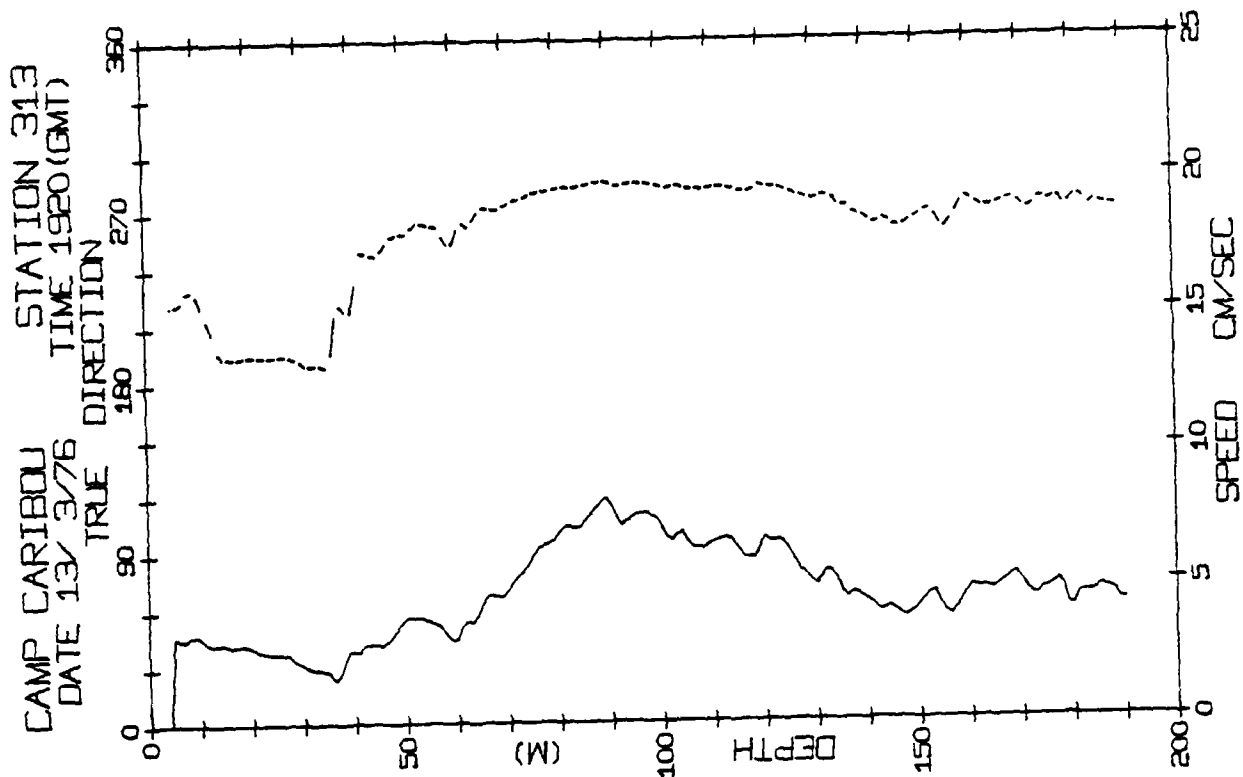


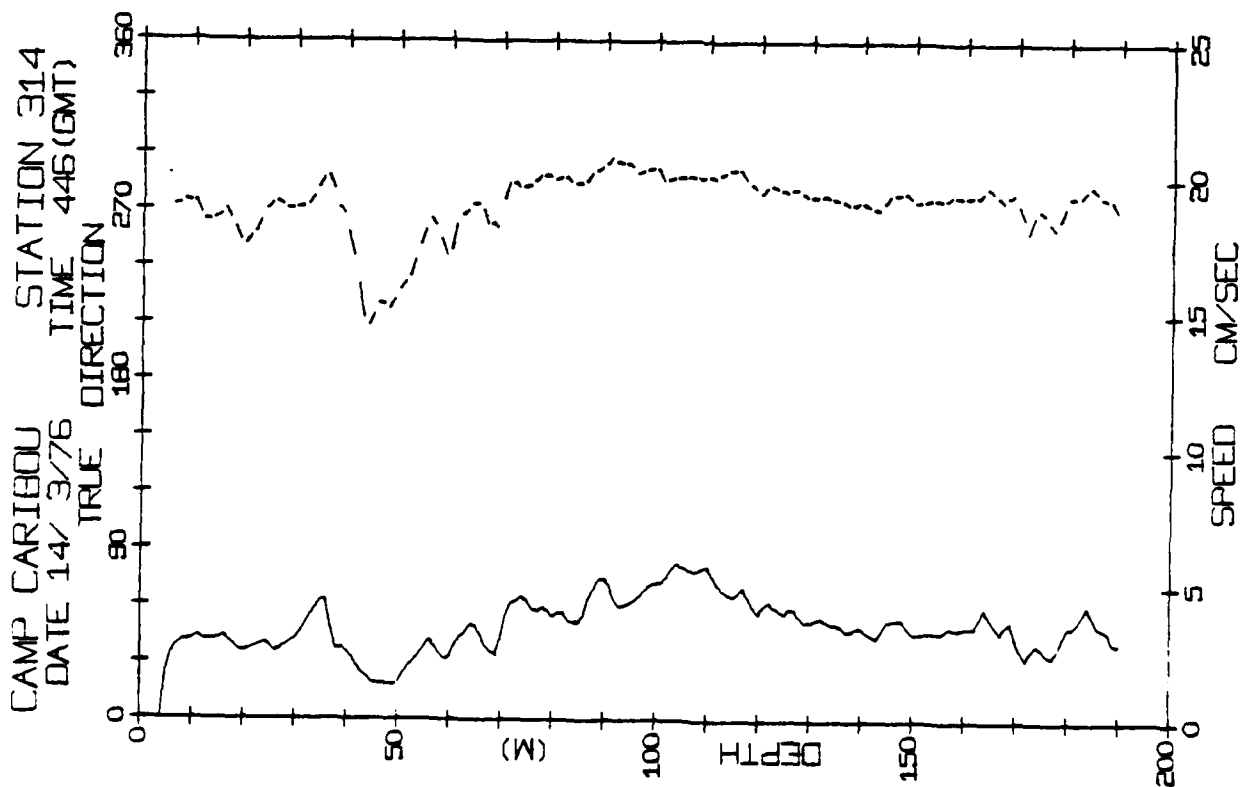
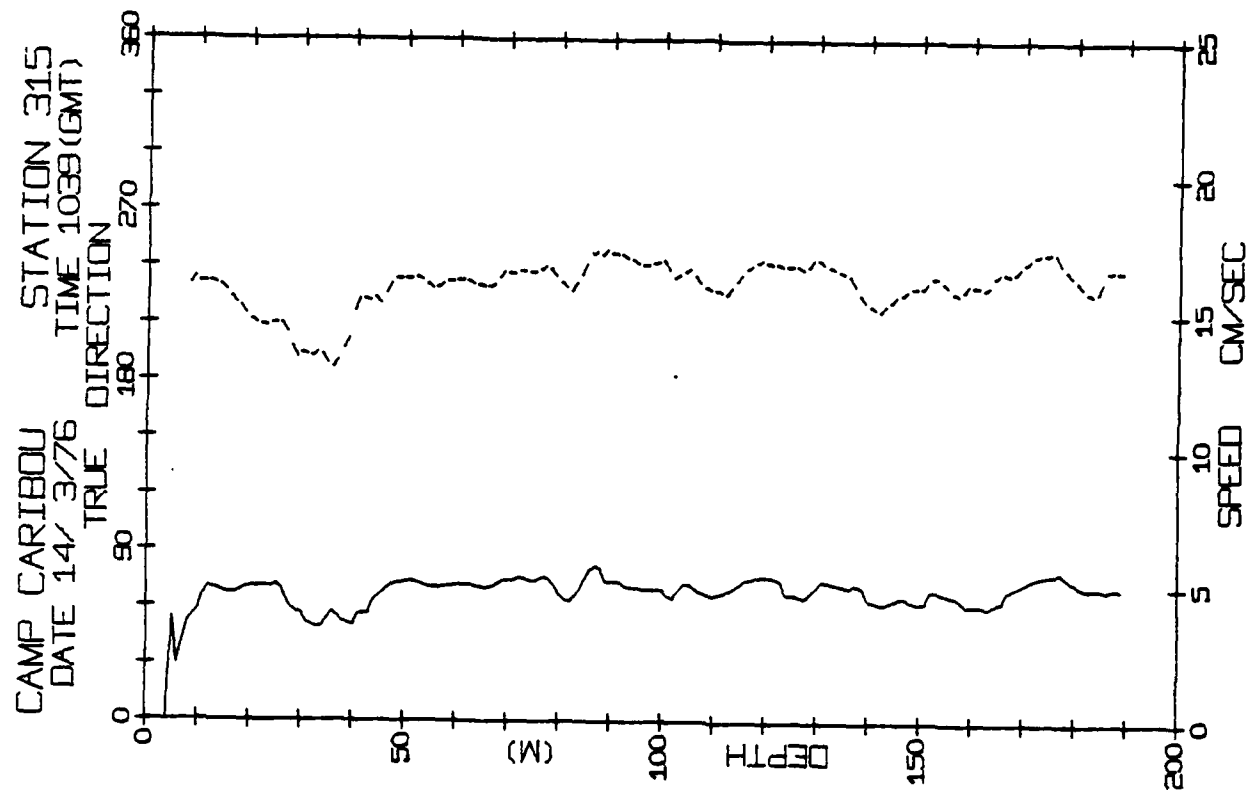




CARIBOU STATION 110 (191M.) 12/MAR/76 833 GMT
 LAT= 72.9682N LONG= 144.4890W LTRF= 0. LGEM= 1.
 NIVEI= -0.6 EIVEI= -1.6 NVEN= 0. EVEN= 0.

[illegible][illegible]



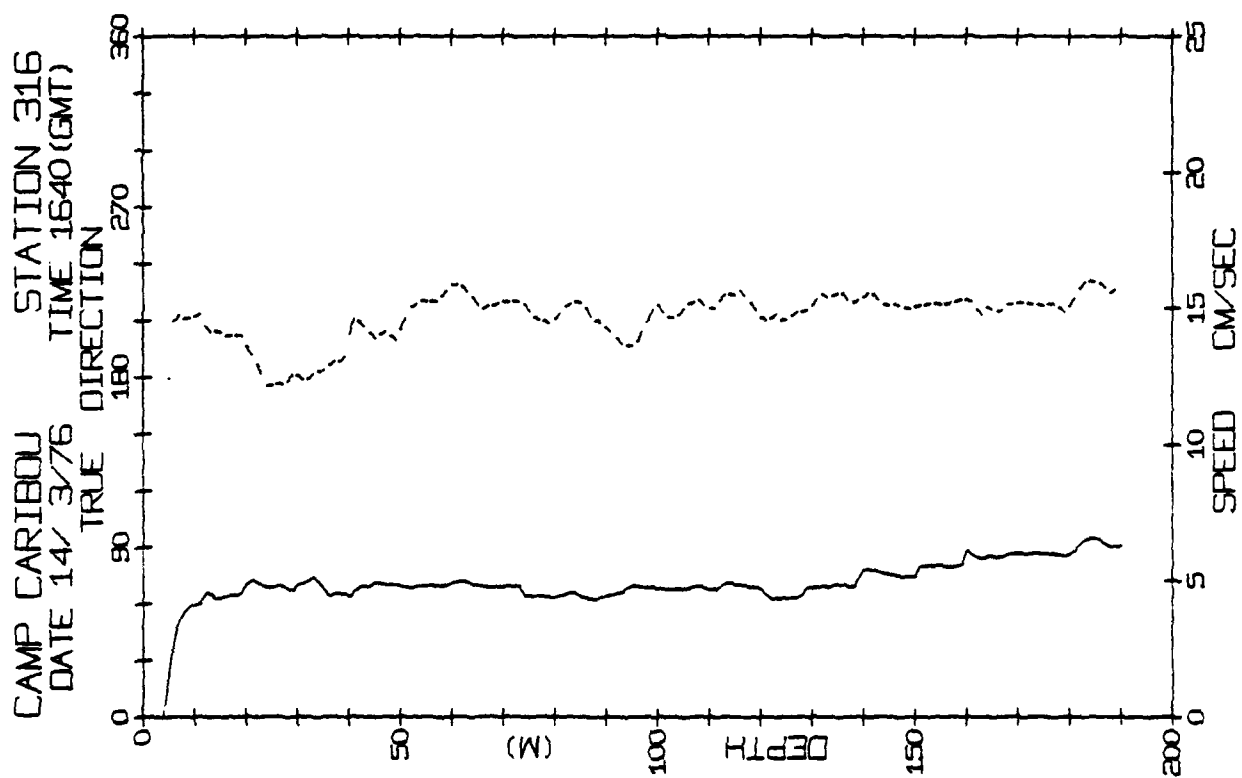
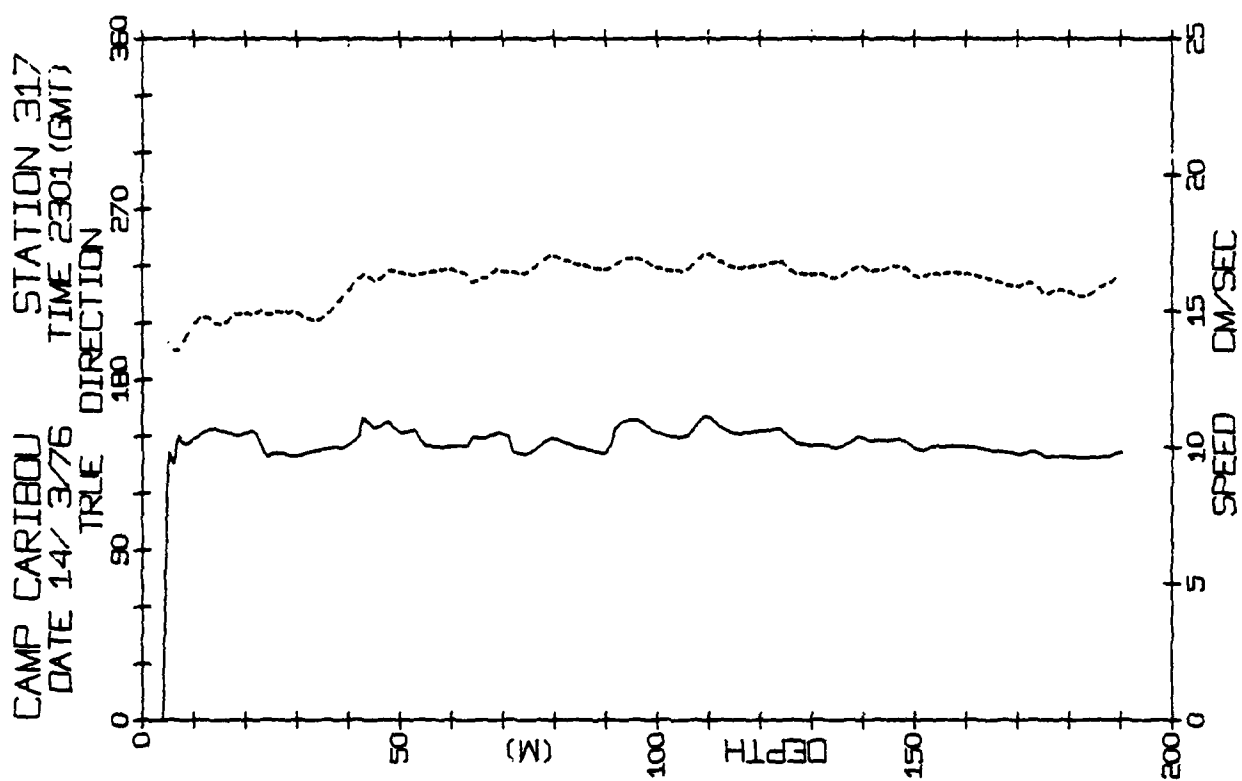


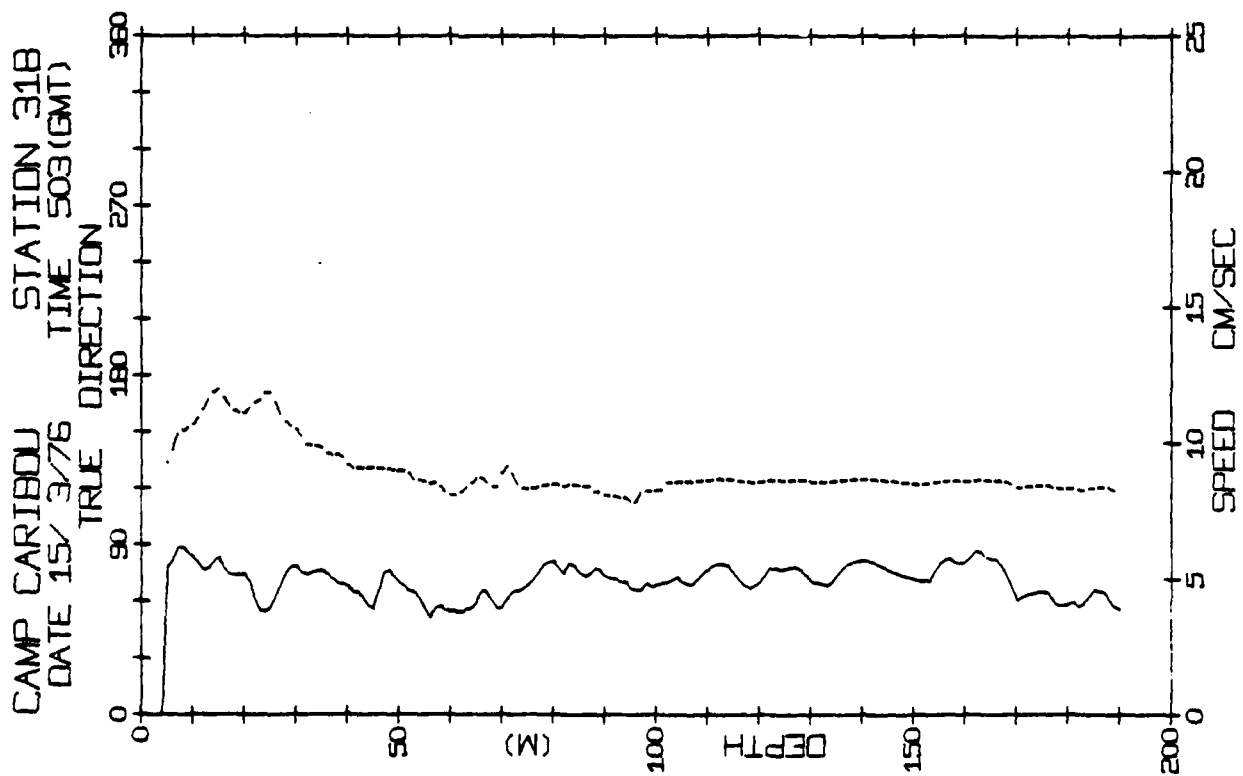
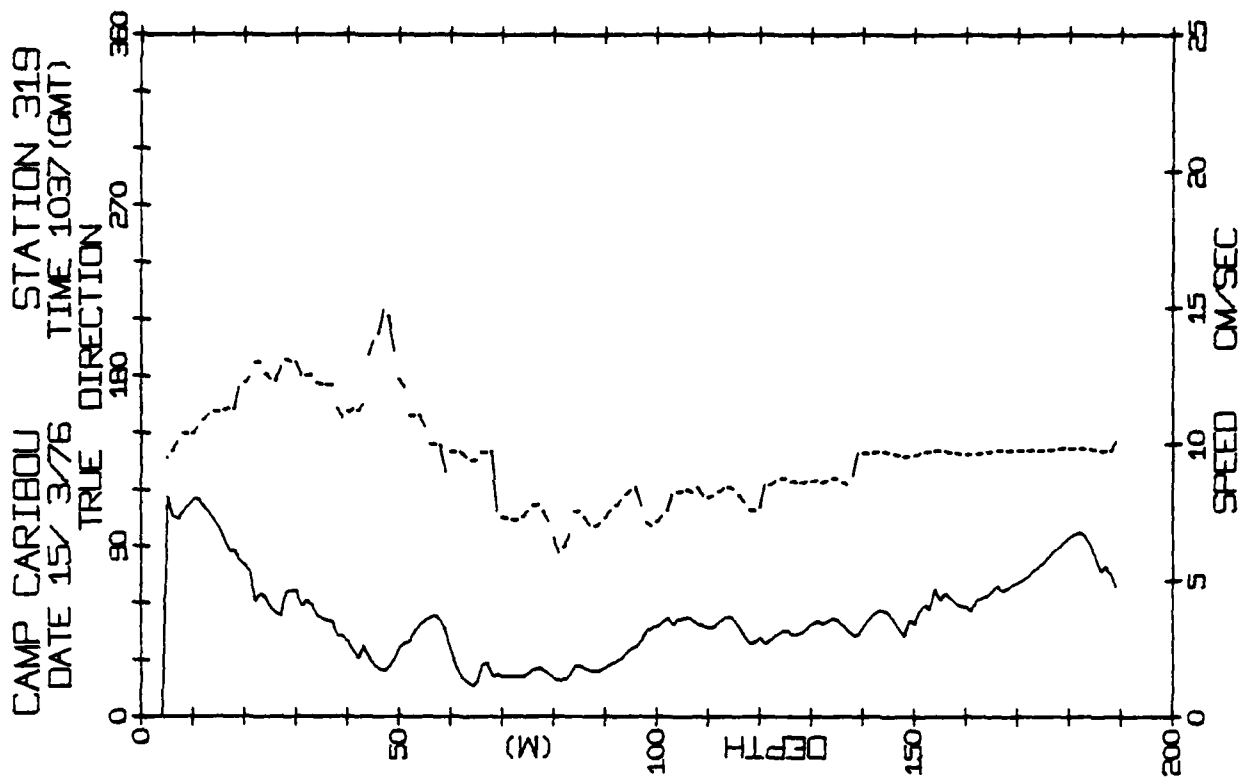
CARINOU STATION 315 (189M.) 14/MAR/76 1039 GMT
 LATE 72.932N LONGE 144.4314W LTRN= 0. LGRE= 0.
 NIVEL=-7.5 ELEV= 3.4 NVEN= 0. FVEN= 0.

UPT	SPD	DRN	DPT	SPD	DRN	DPT	SPD	DRN	DPT
0	0.0	999	134	5.0	230	134	5.0	230	134
1	0.0	999	135	5.0	237	135	5.0	236	135
2	0.0	999	136	5.0	233	136	5.0	231	136
3	0.0	999	137	5.0	226	137	5.0	220	137
4	0.0	999	138	5.0	222	138	5.0	218	138
5	0.0	999	139	5.0	220	139	5.0	220	139
6	0.0	999	140	5.0	220	140	5.0	220	140
7	0.0	999	141	5.0	220	141	5.0	220	141
8	0.0	999	142	5.0	220	142	5.0	220	142
9	0.0	999	143	5.0	220	143	5.0	220	143
10	0.0	999	144	5.0	220	144	5.0	220	144
11	0.0	999	145	5.0	220	145	5.0	220	145
12	0.0	999	146	5.0	220	146	5.0	220	146
13	0.0	999	147	5.0	220	147	5.0	220	147
14	0.0	999	148	5.0	220	148	5.0	220	148
15	0.0	999	149	5.0	220	149	5.0	220	149
16	0.0	999	150	5.0	220	150	5.0	220	150
17	0.0	999	151	5.0	220	151	5.0	220	151
18	0.0	999	152	5.0	220	152	5.0	220	152
19	0.0	999	153	5.0	220	153	5.0	220	153
20	0.0	999	154	5.0	220	154	5.0	220	154
21	0.0	999	155	5.0	220	155	5.0	220	155
22	0.0	999	156	5.0	220	156	5.0	220	156
23	0.0	999	157	5.0	220	157	5.0	220	157
24	0.0	999	158	5.0	220	158	5.0	220	158
25	0.0	999	159	5.0	220	159	5.0	220	159
26	0.0	999	160	5.0	220	160	5.0	220	160
27	0.0	999	161	5.0	220	161	5.0	220	161
28	0.0	999	162	5.0	220	162	5.0	220	162
29	0.0	999	163	5.0	220	163	5.0	220	163
30	0.0	999	164	5.0	220	164	5.0	220	164
31	0.0	999	165	5.0	220	165	5.0	220	165
32	0.0	999	166	5.0	220	166	5.0	220	166
33	0.0	999	167	5.0	220	167	5.0	220	167
34	0.0	999	168	5.0	220	168	5.0	220	168
35	0.0	999	169	5.0	220	169	5.0	220	169
36	0.0	999	170	5.0	220	170	5.0	220	170
37	0.0	999	171	5.0	220	171	5.0	220	171
38	0.0	999	172	5.0	220	172	5.0	220	172
39	0.0	999	173	5.0	220	173	5.0	220	173
40	0.0	999	174	5.0	220	174	5.0	220	174
41	0.0	999	175	5.0	220	175	5.0	220	175
42	0.0	999	176	5.0	220	176	5.0	220	176
43	0.0	999	177	5.0	220	177	5.0	220	177
44	0.0	999	178	5.0	220	178	5.0	220	178
45	0.0	999	179	5.0	220	179	5.0	220	179
46	0.0	999	180	5.0	220	180	5.0	220	180
47	0.0	999	181	5.0	220	181	5.0	220	181
48	0.0	999	182	5.0	220	182	5.0	220	182
49	0.0	999	183	5.0	220	183	5.0	220	183
50	0.0	999	184	5.0	220	184	5.0	220	184
51	0.0	999	185	5.0	220	185	5.0	220	185
52	0.0	999	186	5.0	220	186	5.0	220	186
53	0.0	999	187	5.0	220	187	5.0	220	187
54	0.0	999	188	5.0	220	188	5.0	220	188
55	0.0	999	189	5.0	220	189	5.0	220	189
56	0.0	999	190	5.0	220	190	5.0	220	190
57	0.0	999	191	5.0	220	191	5.0	220	191
58	0.0	999	192	5.0	220	192	5.0	220	192
59	0.0	999	193	5.0	220	193	5.0	220	193
60	0.0	999	194	5.0	220	194	5.0	220	194
61	0.0	999	195	5.0	220	195	5.0	220	195
62	0.0	999	196	5.0	220	196	5.0	220	196
63	0.0	999	197	5.0	220	197	5.0	220	197
64	0.0	999	198	5.0	220	198	5.0	220	198
65	0.0	999	199	5.0	220	199	5.0	220	199
66	0.0	999	200	5.0	220	200	5.0	220	200

CARINOU STATION 314 (190M.) 14/MAR/76 446 GMT
 LATE 72.932N LONGE 144.4587W LTRN= 0. LGRE= 0.
 NIVEL=-5.3 ELEV= 1.9 NVEN= 0. FVEN= 0.

UPT	SPD	DRN	DPT	SPD	DRN	DPT	SPD	DRN	DPT
0	0.0	339	134	3.0	262	134	3.0	262	134
1	0.0	339	135	3.0	277	135	3.0	276	135
2	0.0	339	136	3.0	274	136	3.0	273	136
3	0.0	339	137	3.0	274	137	3.0	274	137
4	0.0	339	138	3.0	274	138	3.0	274	138
5	0.0	339	139	3.0	274	139	3.0	274	139
6	0.0	339	140	3.0	274	140	3.0	274	140
7	0.0	339	141	3.0	274	141	3.0	274	141
8	0.0	339	142	3.0	274	142	3.0	274	142
9	0.0	339	143	3.0	274	143	3.0	274	143
10	0.0	339	144	3.0	274	144	3.0	274	144
11	0.0	339	145	3.0	274	145	3.0	274	145
12	0.0	339	146	3.0	274	146	3.0	274	146
13	0.0	339	147	3.0	274	147	3.0	274	147
14	0.0	339	148	3.0	274	148	3.0	274	148
15	0.0	339	149	3.0	274	149	3.0	274	149
16	0.0	339	150	3.0	274	150	3.0	274	150
17	0.0	339	151	3.0	274	151	3.0	274	151
18	0.0	339	152	3.0	274	152	3.0	274	152
19	0.0	339	153	3.0	274	153	3.0	274	153
20	0.0	339	154	3.0	274	154	3.0	274	154
21	0.0	339	155	3.0	274	155	3.0	274	155
22	0.0	339	156	3.0	274	156	3.0	274	156
23	0.0	339	157	3.0	274	157	3.0	274	157
24	0.0	339	158	3.0	274	158	3.0	274	158
25	0.0	339	159	3.0	274	159	3.0	274	159
26	0.0	339	160	3.0	274	160	3.0	274	160
27	0.0	339	161	3.0	274	161	3.0	274	161
28	0.0	339	162	3.0	274	162	3.0	274	162
29	0.0	339	163	3.0	274	163	3.0	274	163
30	0.0	339	164	3.0	274	164	3.0	274	164
31	0.0	339	165	3.0	274	165	3.0	274	165
32	0.0	339	166	3.0	274	166	3.0	274	166
33	0.0	339	167	3.0	274	167	3.0	274	167
34	0.0	339	168	3.0	274	168	3.0	274	168
35	0.0	339	169	3.0	274	169	3.0	274	169
36	0.0	339	170	3.0	274	170	3.0	274	170
37	0.0	339	171	3.0	274	171	3.0	274	171
38	0.0	339	172	3.0	274	172	3.0	274	172
39	0.0	339	173	3.0	274	173	3.0	274	173
40	0.0	339	174	3.0	274	174	3.0	274	174
41	0.0	339	175	3.0	274	175	3.0	274	175
42	0.0	339	176	3.0	274	176	3.0	274	176
43	0.0	339	177	3.0	274	177	3.0	274	177
44	0.0	339	178	3.0	274	178	3.0	274	178
45	0.0	339	179	3.0	274	179	3.0	274	179
46	0.0	339	180	3.0	274	180	3.0	274	180
47	0.0	339	181	3.0	274	181	3.0	274	181
48	0.0	339	182	3.0	274	182	3.0	274	182
49	0.0	339	183	3.0	274	183	3.0	274	183
50	0.0	339	184	3.0	274	184	3.0	274	184
51	0.0	339	185	3.0	274	185	3.0	274	185
52	0.0	339	186	3.0	274	186	3.0	274	186
53	0.0	339	187	3.0	274	187	3.0	274	187
54	0.0	339	188	3.0	274	188	3.0	274	188
55	0.0	339	189	3.0	274	189	3.0	274	189
56	0.0	339	190	3.0	274	190	3.0	274	190
57	0.0	339	191	3.0	274	191	3.0	274	191
58	0.0	339	192	3.0	274	192	3.0	274	192
59	0.0	339	193	3.0	274	193	3.0	274	193
60	0.0	339	194	3.0	274	194	3.0	274	194
61	0.0	339	195	3.0	274	195	3.0	274	195
62	0.0	339	196	3.0	274	196	3.0	274	196
63	0.0	339	197	3.0	274	197	3.0	274	197
64	0.0	339	198	3.0	274	198	3.0	274	198
65	0.0	339	199	3.0	274	199	3.0	274	199
66	0.0	339	200	3.0	274	200	3.0	274	200



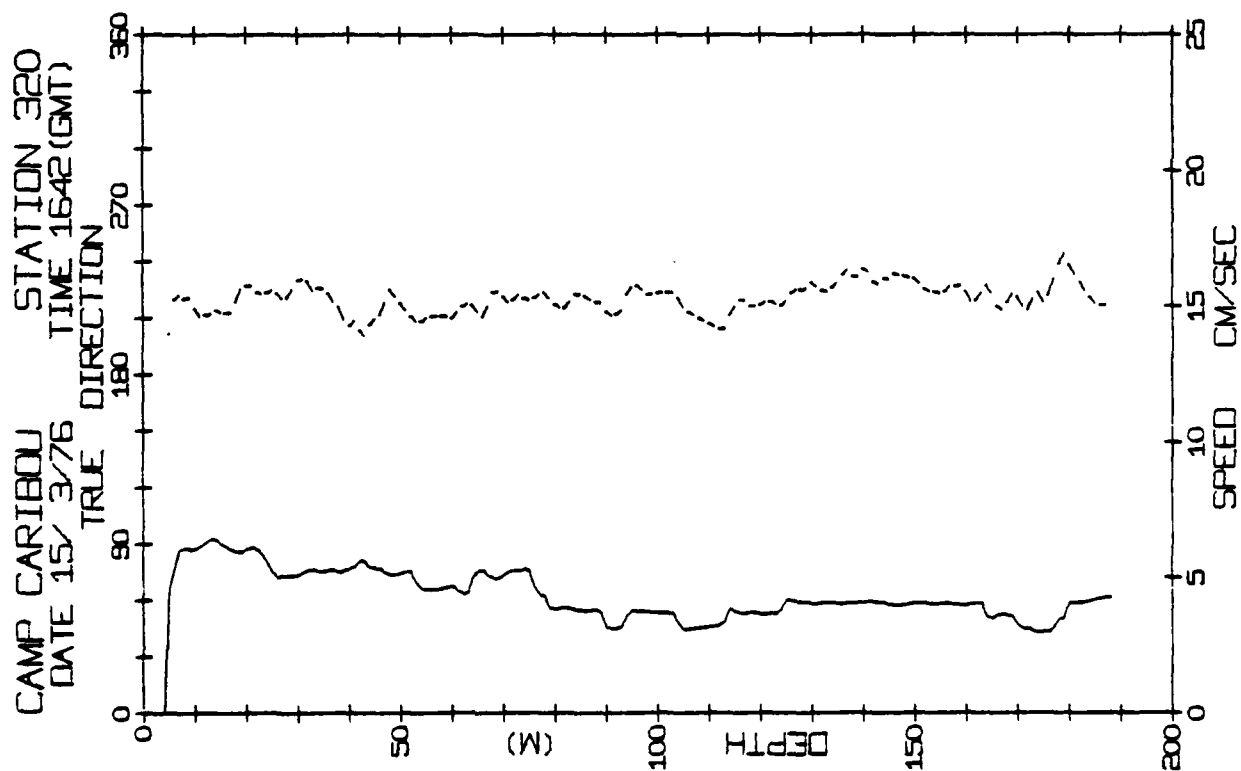
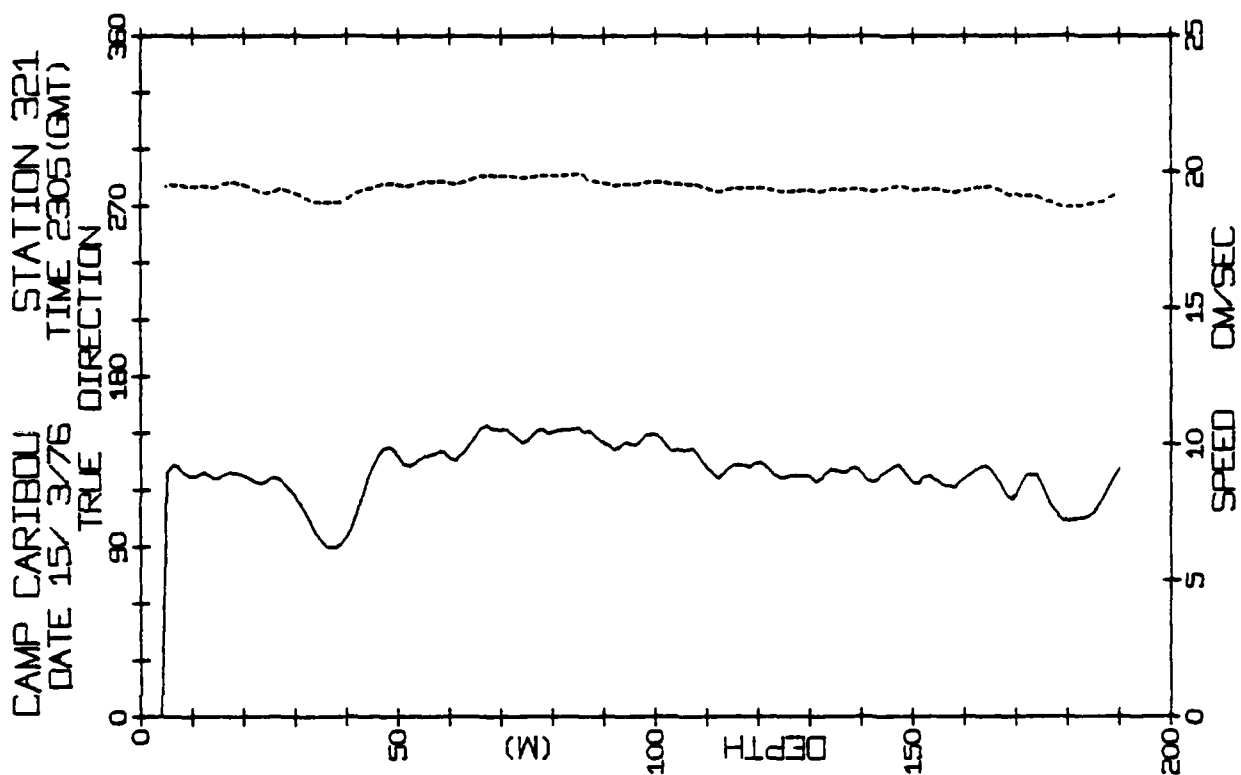


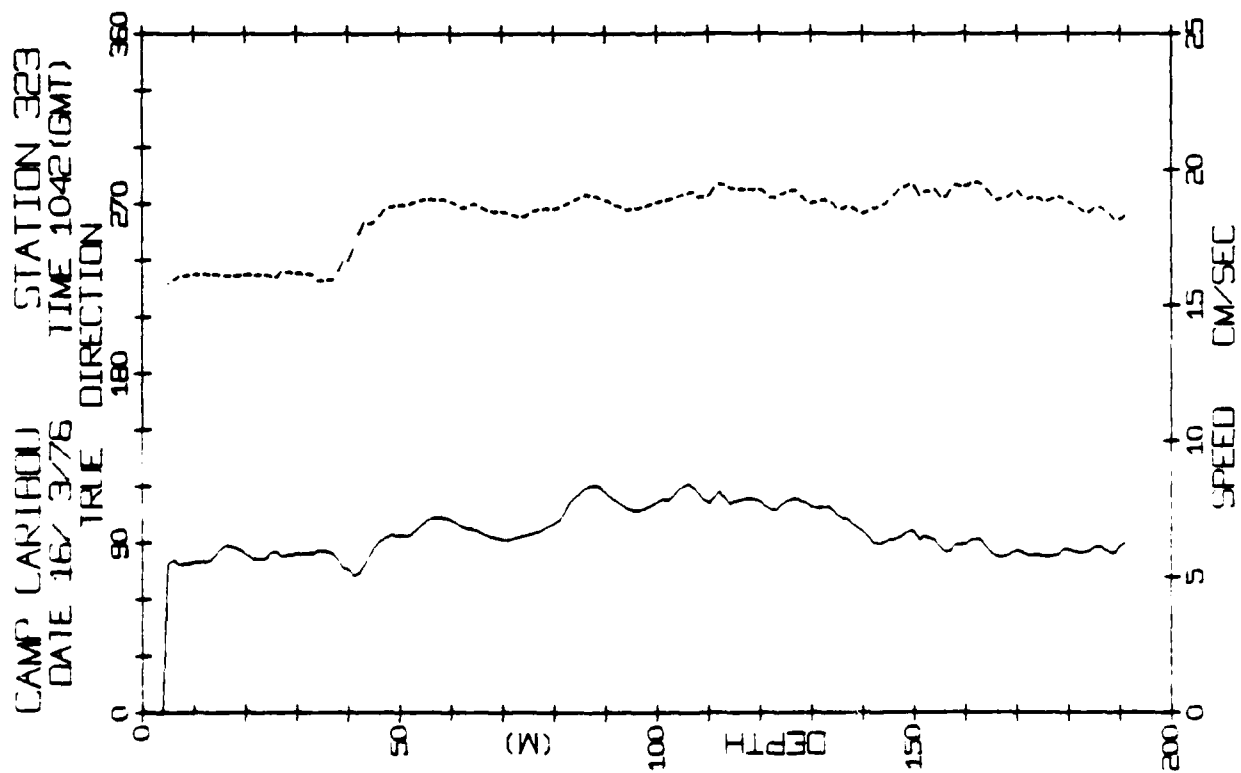
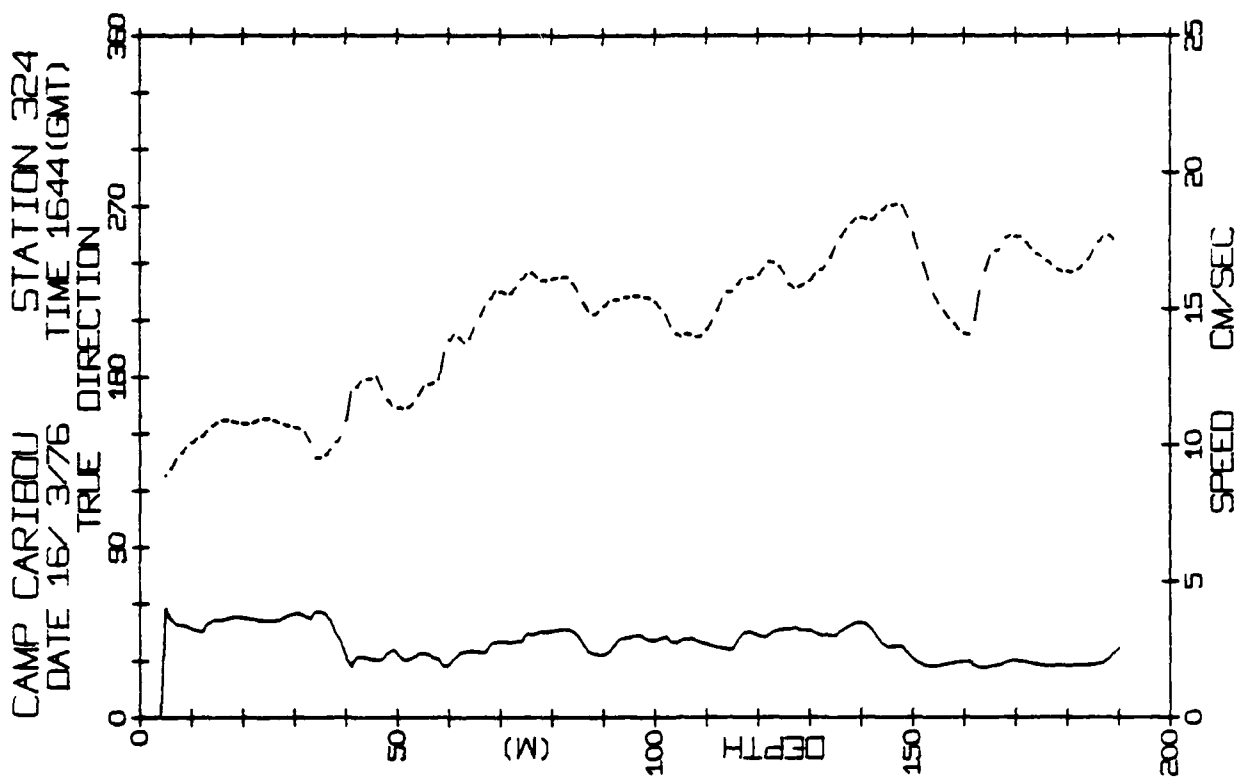
```

CARBIDU STATION 318 (190M.) 15/MAN/76 503 GMT
LAT= 72.0780N LONG= 144.3545W LTRN= 1. LGEM= 2.
NIVEL= -0.5 EIVL= 10.1 NVEN= 0. FVEN= 0.

```

[illegible]





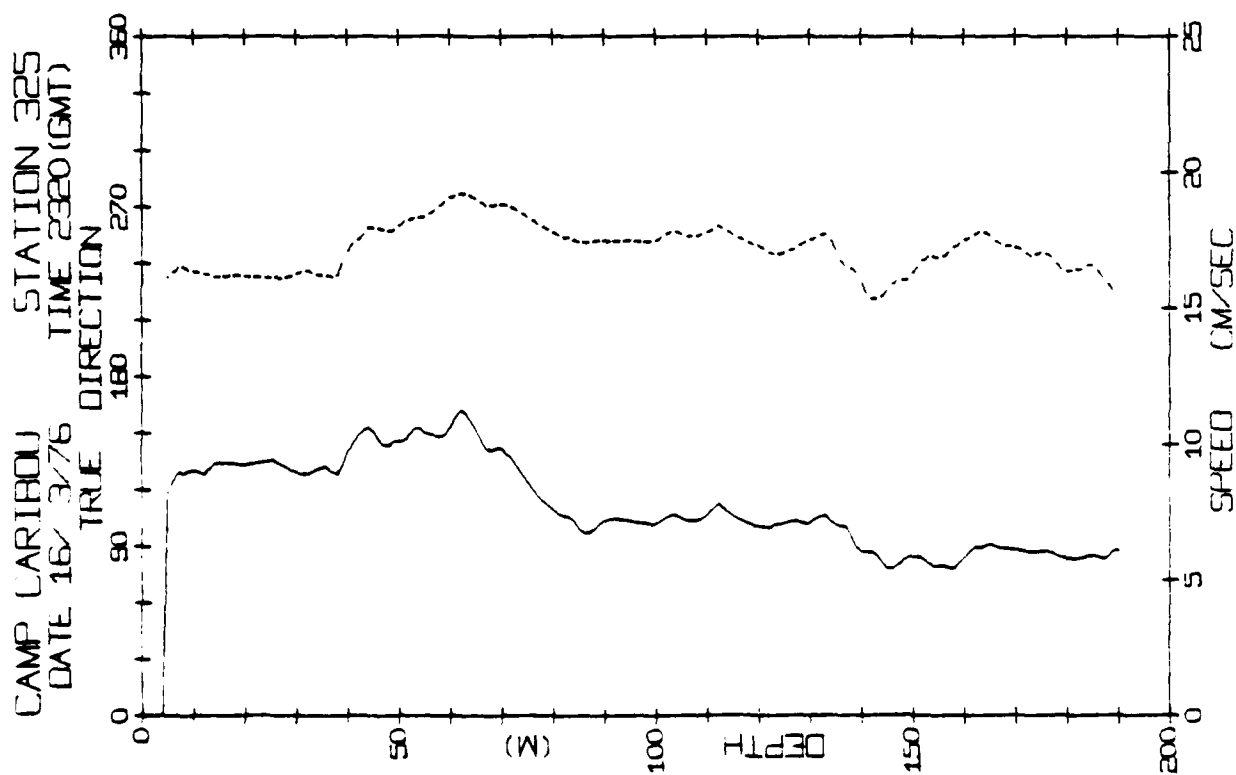
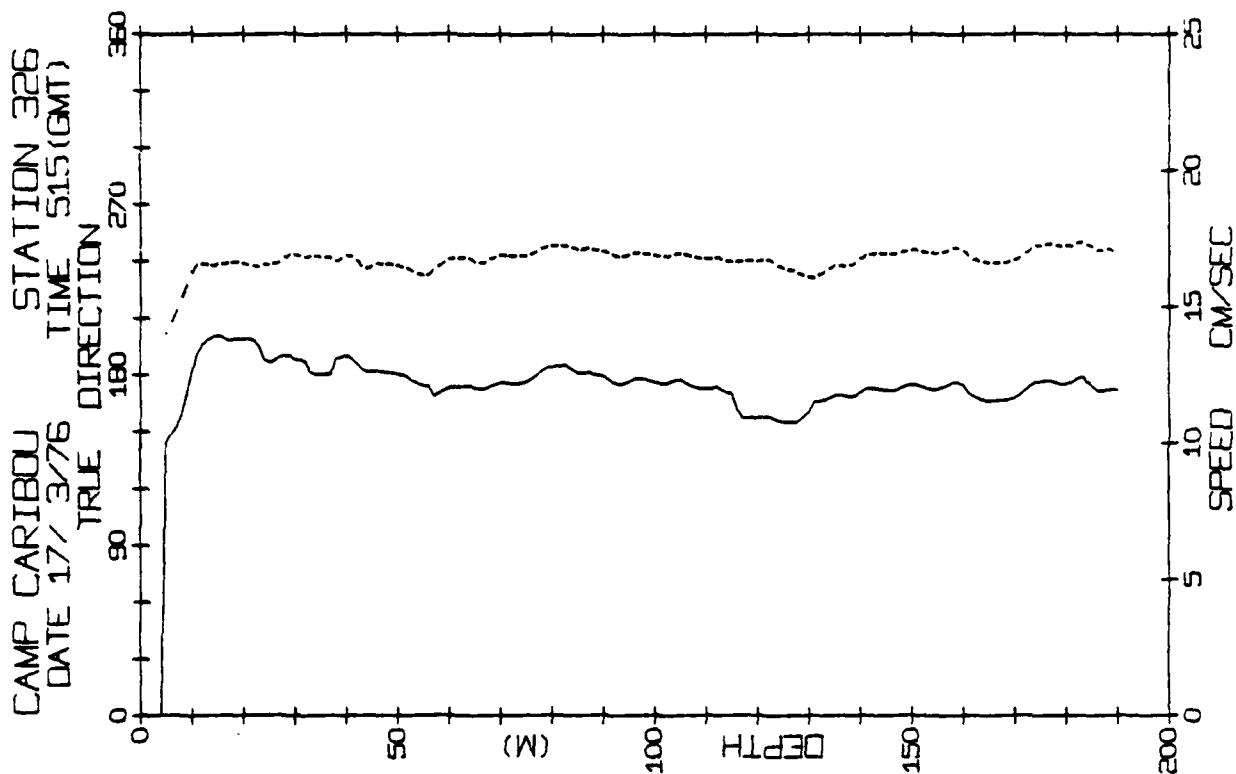
```

(CANIM000 STATION 323 (191M.) 16/MAR/76 1042 GMT
LAT= 72.8033N LONG= 144.2464W LTM= 1. LGFM= 1.
NIVEL= -5.1 EVEL= -2.7 NVEH= 0. FVFM= 0.

```

[illegible]

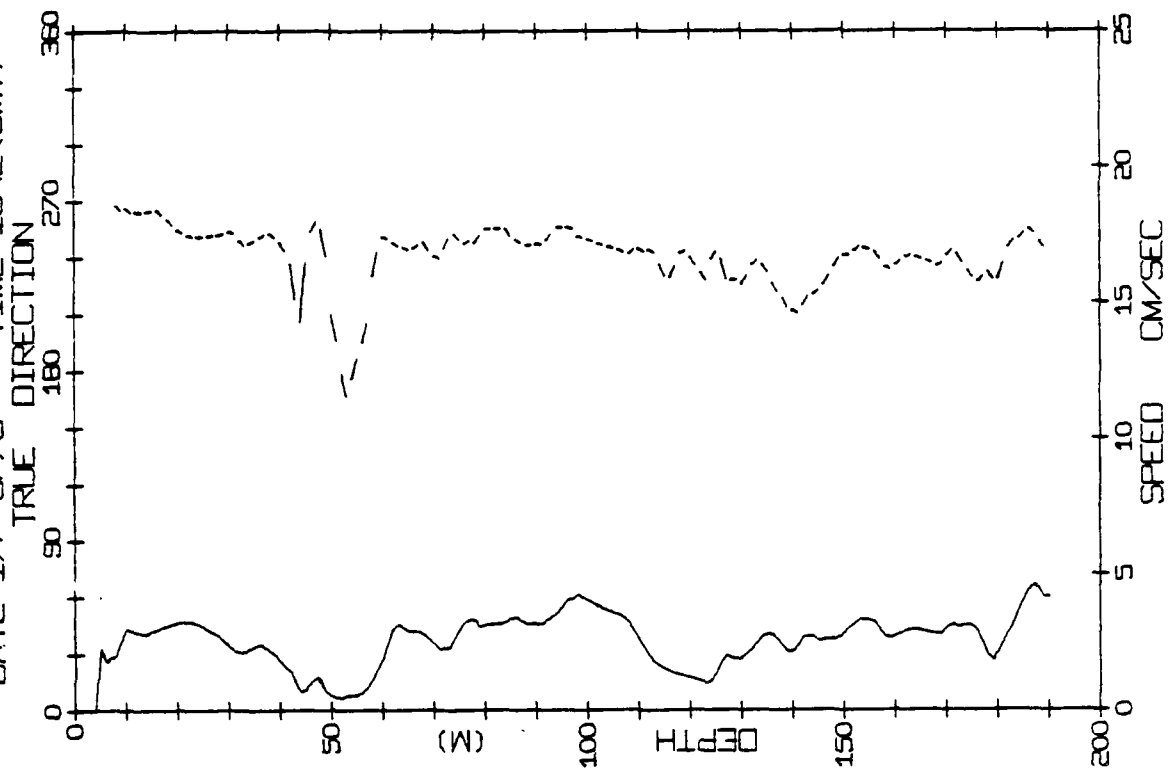
UPT	SPD	DWM	DPT	SPD	DWM	DPT	SPD	DWM	DPT
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1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50	50
51	51	51	51	51	51	51	51	51	51
52	52	52	52	52	52</				



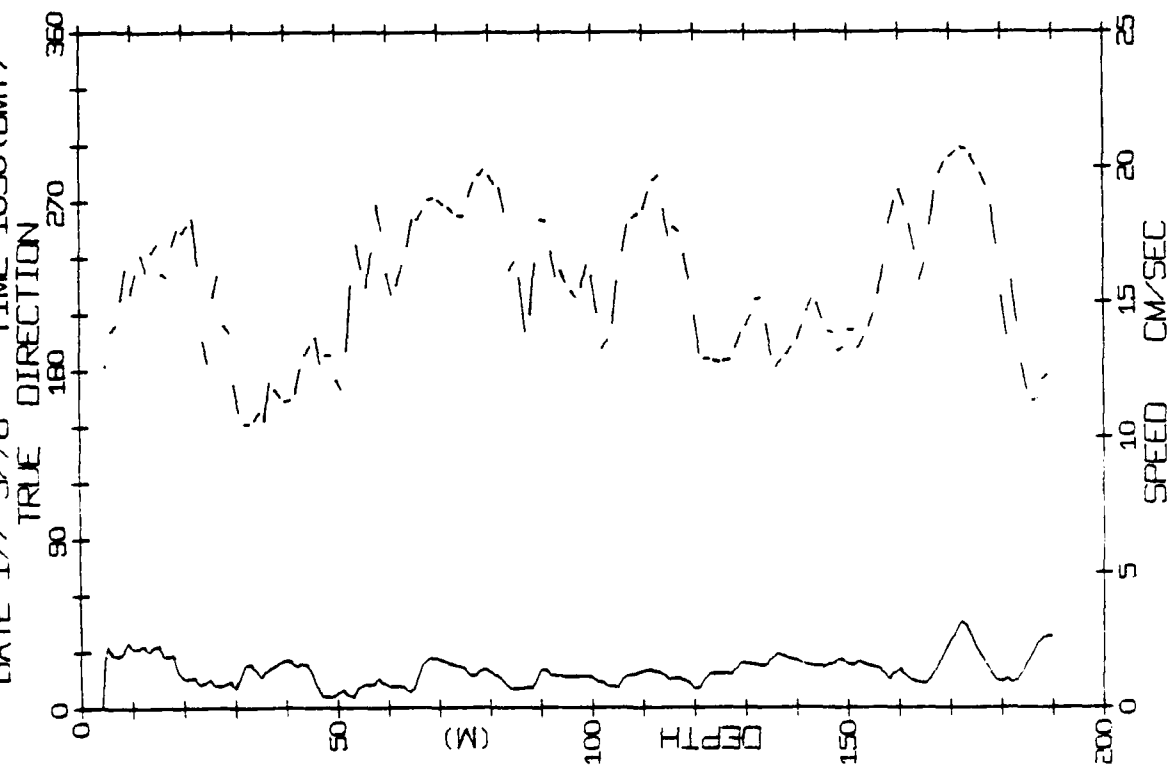
PARABOL STATION 325 (190M.)
 LAT= 72.7796N LONG= 144.2433W
 ELEV= -8.4 FIVE= -0.1

223

CAMP CARIBOU STATION 328
DATE 17/ 3/76 TIME 1642 (GMT)



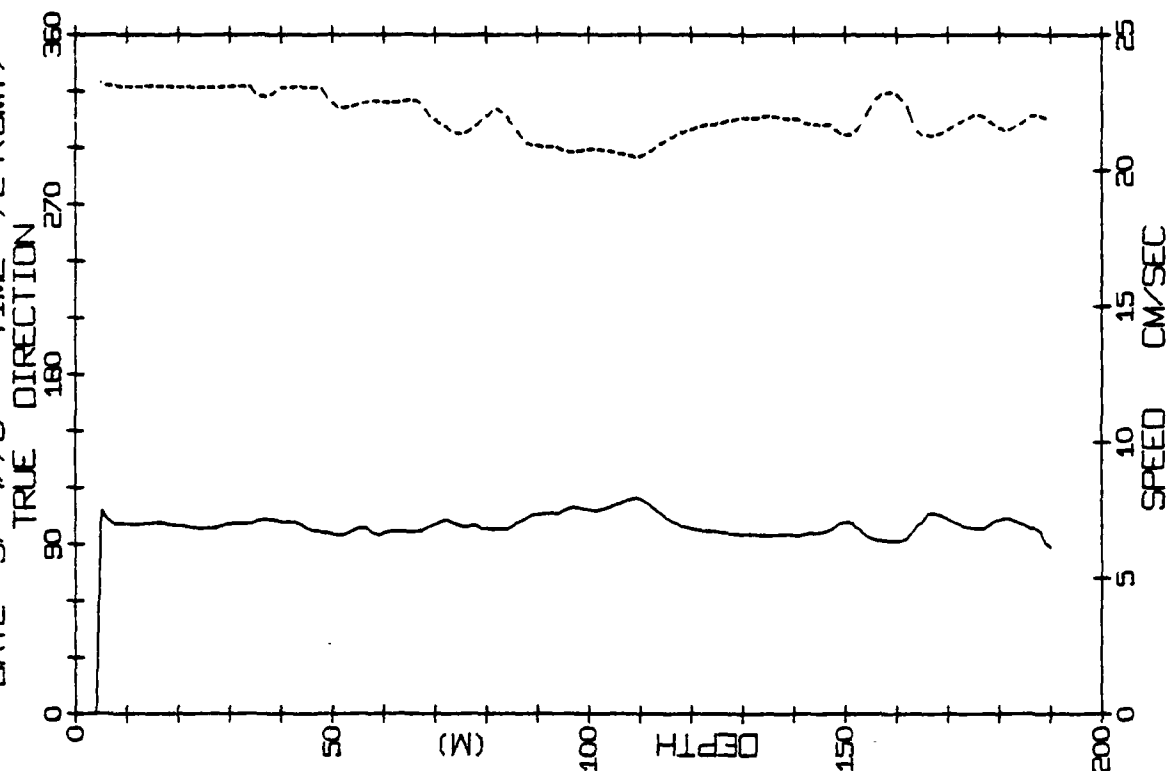
CAMP CARIBOU STATION 327
DATE 17/ 3/76 TIME 1030 (GMT)



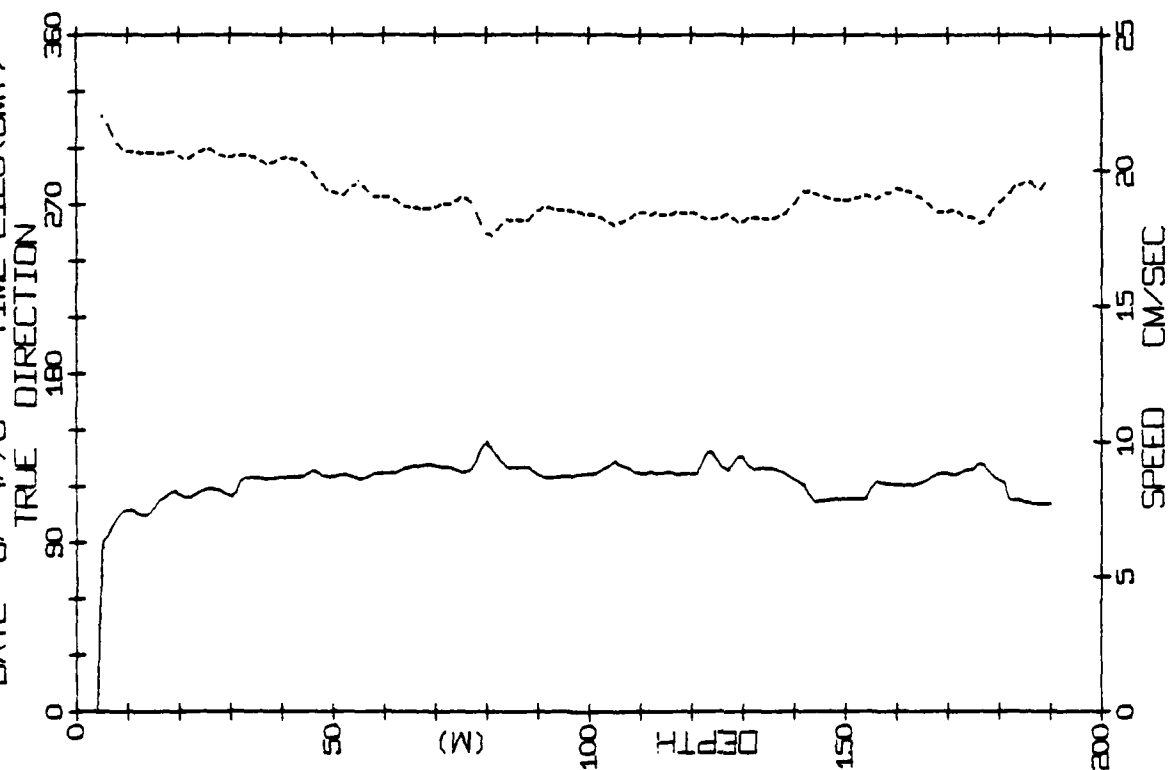
CARINOU STATION 328 (190M.) 17/MAR/76 1642 GMT
 LAT=72.726N LONG=144.177W LTRM= 2:
 NVEL=-2.6 FVEL= 0:
 DPT 0: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CARINOU STATION 327 (190M.) 17/MAR/76 1030 GMT
 LAT=72.735N LONG=144.208W LTRM= 2:
 NVEL=-7.9 FVEL= 0:
 DPT 0: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CAMP CARIBOU STATION 373
DATE 9/ 4/76 TIME 724(GMT)



CAMP CARIBOU STATION 372
DATE 8/ 4/76 TIME 2126(GMT)



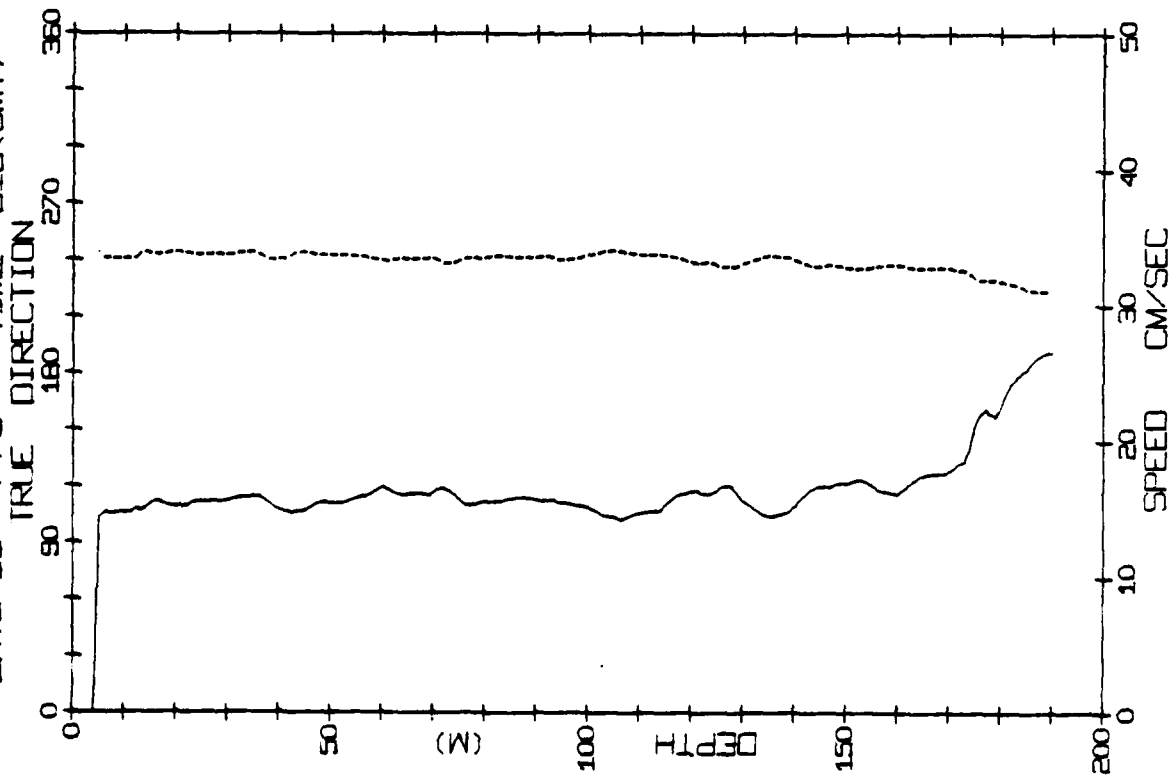
CARIBBEAN STATION 373 (190M.) 9/APR/76 724 GMT
 LAT=72.754N LONG=144.389W LCHN= 2:
 NVEL= 6.7 EIVFL= -0.8 NVER= 0:
 EVER= 0:

DPT	SPD	DRN	DPT	SPD	DRN	DPT	SPD	DRN
0	0.0	0.0	1	0.0	0.0	2	0.0	0.0
1	0.0	0.0	3	0.0	0.0	4	0.0	0.0
2	0.0	0.0	5	0.0	0.0	6	0.0	0.0
3	0.0	0.0	7	0.0	0.0	8	0.0	0.0
4	0.0	0.0	9	0.0	0.0	10	0.0	0.0
5	0.0	0.0	11	0.0	0.0	12	0.0	0.0
6	0.0	0.0	13	0.0	0.0	14	0.0	0.0
7	0.0	0.0	15	0.0	0.0	16	0.0	0.0
8	0.0	0.0	17	0.0	0.0	18	0.0	0.0
9	0.0	0.0	19	0.0	0.0	20	0.0	0.0
10	0.0	0.0	21	0.0	0.0	22	0.0	0.0
11	0.0	0.0	23	0.0	0.0	24	0.0	0.0
12	0.0	0.0	25	0.0	0.0	26	0.0	0.0
13	0.0	0.0	27	0.0	0.0	28	0.0	0.0
14	0.0	0.0	29	0.0	0.0	30	0.0	0.0
15	0.0	0.0	31	0.0	0.0	32	0.0	0.0
16	0.0	0.0	33	0.0	0.0	34	0.0	0.0
17	0.0	0.0	35	0.0	0.0	36	0.0	0.0
18	0.0	0.0	37	0.0	0.0	38	0.0	0.0
19	0.0	0.0	39	0.0	0.0	40	0.0	0.0
20	0.0	0.0	41	0.0	0.0	42	0.0	0.0
21	0.0	0.0	43	0.0	0.0	44	0.0	0.0
22	0.0	0.0	45	0.0	0.0	46	0.0	0.0
23	0.0	0.0	47	0.0	0.0	48	0.0	0.0
24	0.0	0.0	49	0.0	0.0	50	0.0	0.0
25	0.0	0.0	51	0.0	0.0	52	0.0	0.0
26	0.0	0.0	53	0.0	0.0	54	0.0	0.0
27	0.0	0.0	55	0.0	0.0	56	0.0	0.0
28	0.0	0.0	57	0.0	0.0	58	0.0	0.0
29	0.0	0.0	59	0.0	0.0	60	0.0	0.0
30	0.0	0.0	61	0.0	0.0	62	0.0	0.0
31	0.0	0.0	63	0.0	0.0	64	0.0	0.0
32	0.0	0.0	65	0.0	0.0	66	0.0	0.0
33	0.0	0.0	67	0.0	0.0	68	0.0	0.0
34	0.0	0.0	69	0.0	0.0	70	0.0	0.0
35	0.0	0.0	71	0.0	0.0	72	0.0	0.0
36	0.0	0.0	73	0.0	0.0	74	0.0	0.0
37	0.0	0.0	75	0.0	0.0	76	0.0	0.0
38	0.0	0.0	77	0.0	0.0	78	0.0	0.0
39	0.0	0.0	79	0.0	0.0	80	0.0	0.0
40	0.0	0.0	81	0.0	0.0	82	0.0	0.0
41	0.0	0.0	83	0.0	0.0	84	0.0	0.0
42	0.0	0.0	85	0.0	0.0	86	0.0	0.0
43	0.0	0.0	87	0.0	0.0	88	0.0	0.0
44	0.0	0.0	89	0.0	0.0	90	0.0	0.0
45	0.0	0.0	91	0.0	0.0	92	0.0	0.0
46	0.0	0.0	93	0.0	0.0	94	0.0	0.0
47	0.0	0.0	95	0.0	0.0	96	0.0	0.0
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49	0.0	0.0	99	0.0	0.0	100	0.0	0.0

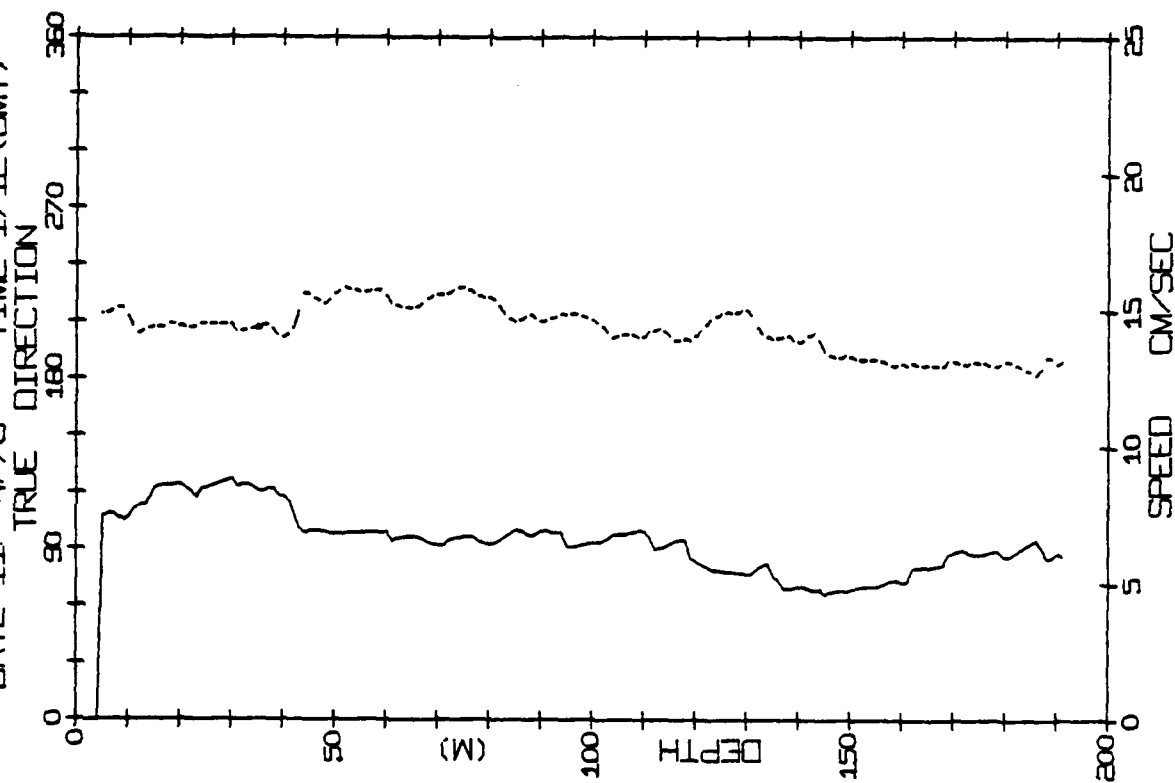
CARIBBEAN STATION 372 (190M.) 8/APR/76 2126 GMT
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 EVER= 0:

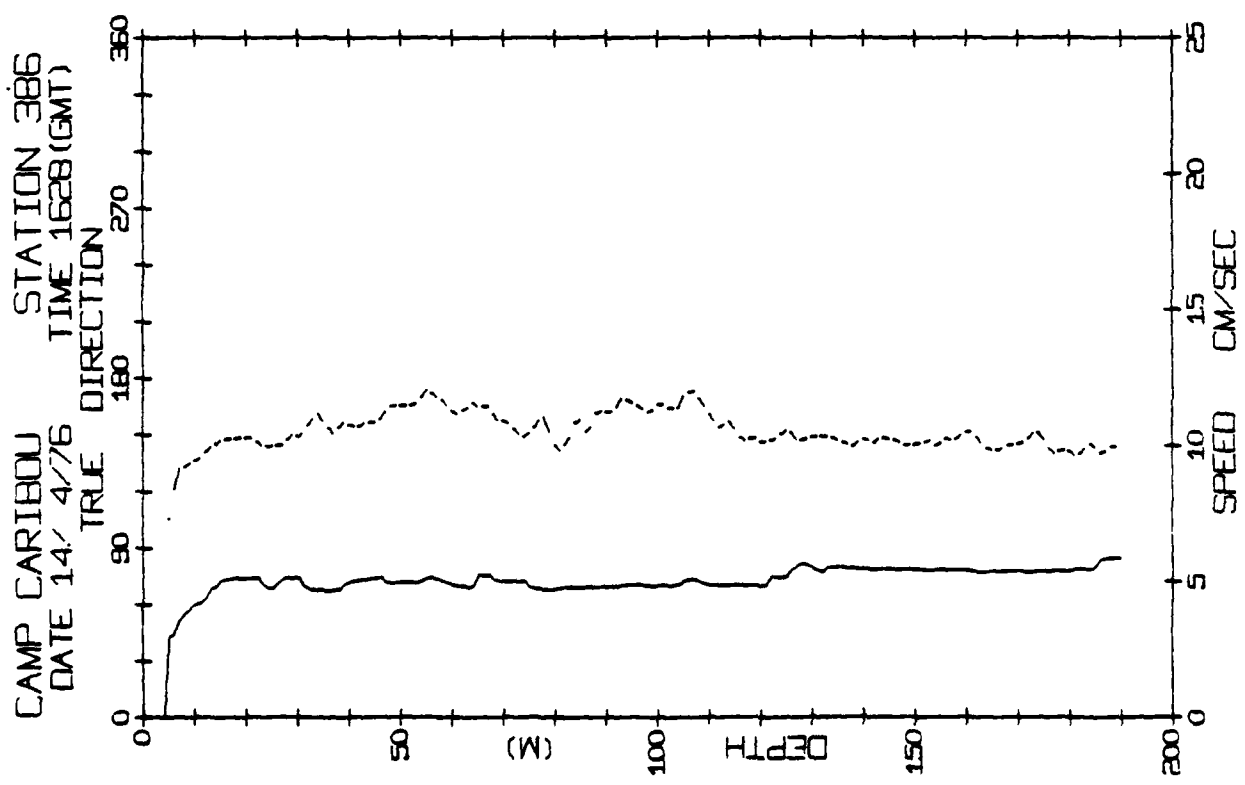
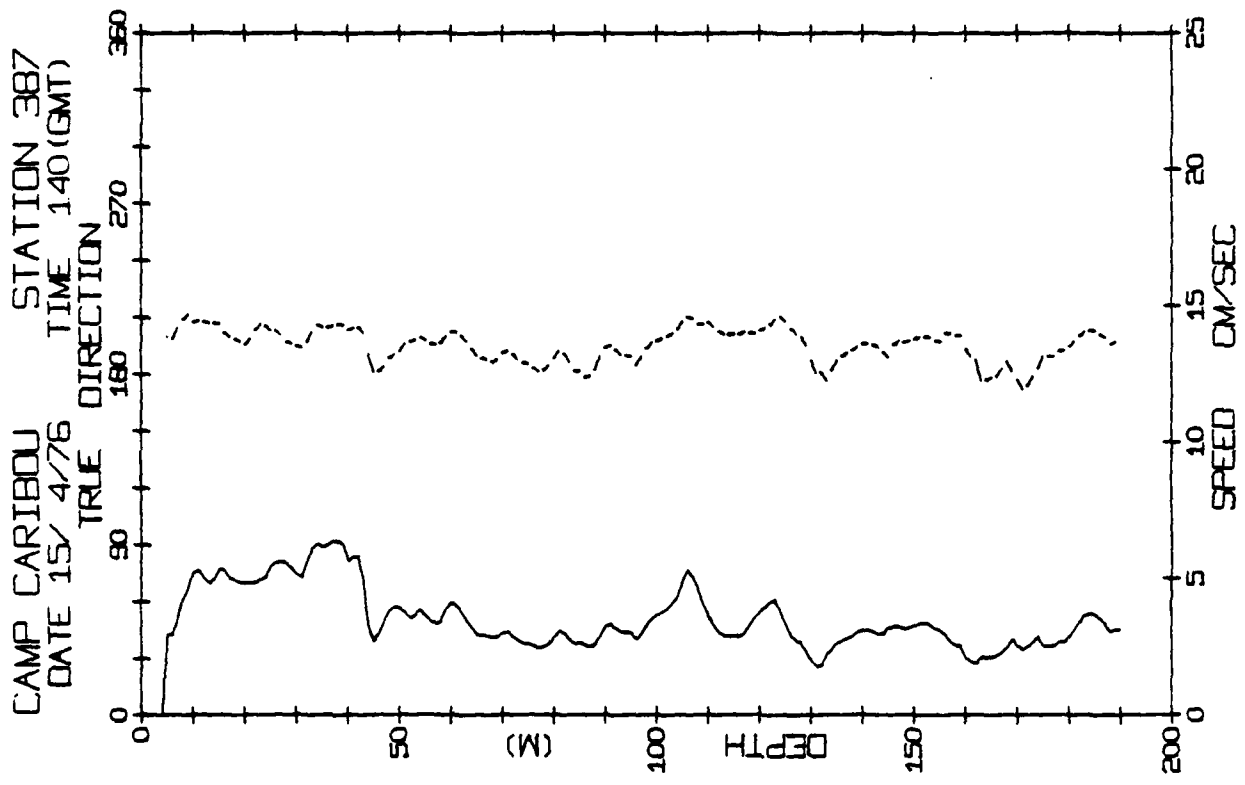
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2	0.0	0.0	5	0.0	0.0	6	0.0	0.0
3	0.0	0.0	7	0.0	0.0	8	0.0	0.0
4	0.0	0.0	9	0.0	0.0	10	0.0	0.0
5	0.0	0.0	11	0.0	0.0	12	0.0	0.0
6	0.0	0.0	13	0.0	0.0	14	0.0	0.0
7	0.0	0.0	15	0.0	0.0	16	0.0	0.0
8	0.0	0.0	17	0.0	0.0	18	0.0	0.0
9	0.0	0.0	19	0.0	0.0	20	0.0	0.0
10	0.0	0.0	21	0.0	0.0	22	0.0	0.0
11	0.0	0.0	23	0.0	0.0	24	0.0	0.0
12	0.0	0.0	25	0.0	0.0	26	0.0	0.0
13	0.0	0.0	27	0.0	0.0	28	0.0	0.0
14	0.0	0.0	29	0.0	0.0	30	0.0	0.0
15	0.0	0.0	31	0.0	0.0	32	0.0	0.0
16	0.0	0.0	33	0.0	0.0	34	0.0	0.0
17	0.0	0.0	35	0.0	0.0	36	0.0	0.0
18	0.0	0.0	37	0.0	0.0	38	0.0	0.0
19	0.0	0.0	39	0.0	0.0	40	0.0	0.0
20	0.0	0.0	41	0.0	0.0	42	0.0	0.0
21	0.0	0.0	43	0.0	0.0	44	0.0	0.0
22	0.0	0.0	45	0.0	0.0	46	0.0	0.0
23	0.0	0.0	47	0.0	0.0	48	0.0	0.0
24	0.0	0.0	49	0.0	0.0	50	0.0	0.0
25	0.0	0.0	51	0.0	0.0	52	0.0	0.0
26	0.0	0.0	53	0.0	0.0	54	0.0	0.0
27	0.0	0.0	55	0.0	0.0	56	0.0	0.0
28	0.0	0.0	57	0.0	0.0	58	0.0	0.0
29	0.0	0.0	59	0.0	0.0	60	0.0	0.0
30	0.0	0.0	61	0.0	0.0	62	0.0	0.0
31	0.0	0.0	63	0.0	0.0	64	0.0	0.0
32	0.0	0.0	65	0.0	0.0	66	0.0	0.0
33	0.0	0.0	67	0.0	0.0	68	0.0	0.0
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42	0.0	0.0	85	0.0	0.0	86	0.0	0.0
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44	0.0	0.0	89	0.0	0.0	90	0.0	0.0
45	0.0	0.0	91	0.0	0.0	92	0.0	0.0
46	0.0	0.0	93	0.0	0.0	94	0.0	0.0
47	0.0	0.0	95	0.0	0.0	96	0.0	0.0
48	0.0	0.0	97	0.0	0.0	98	0.0	0.0
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CAMP CARIBOU STATION 377
DATE 11/ 4/76 TIME 818 (GMT)

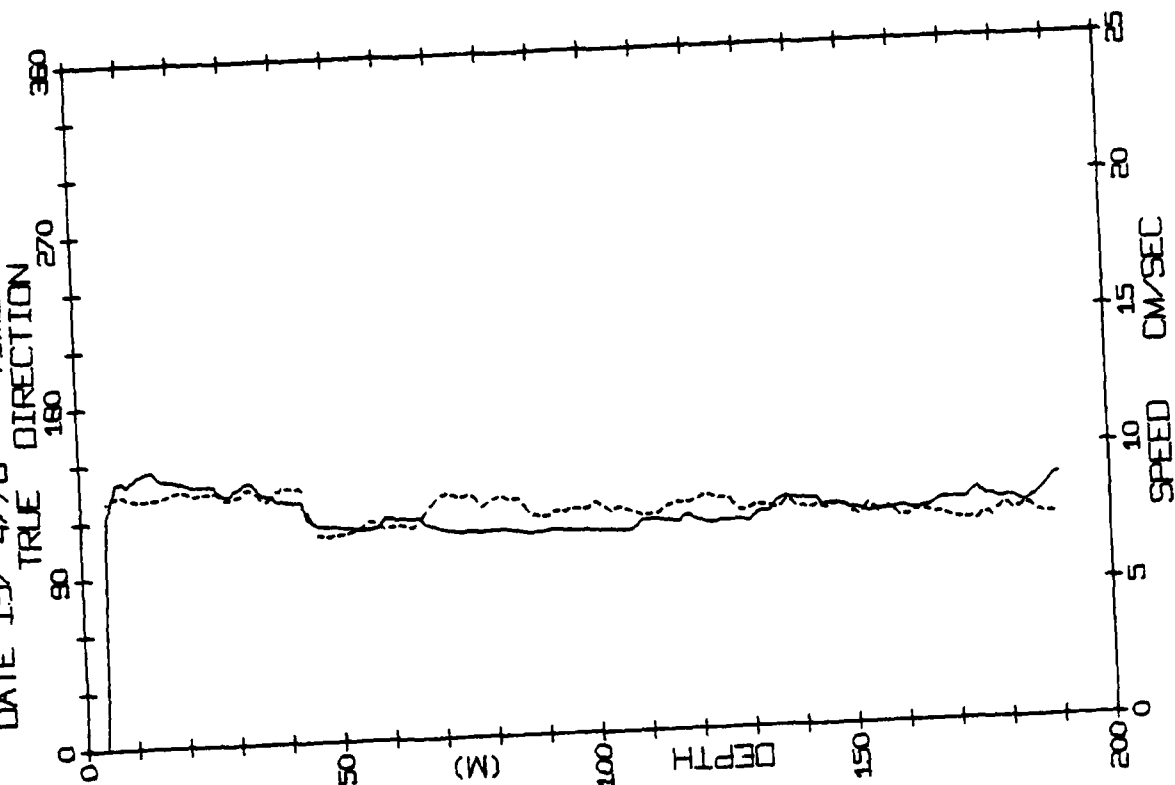


CAMP CARIBOU STATION 379
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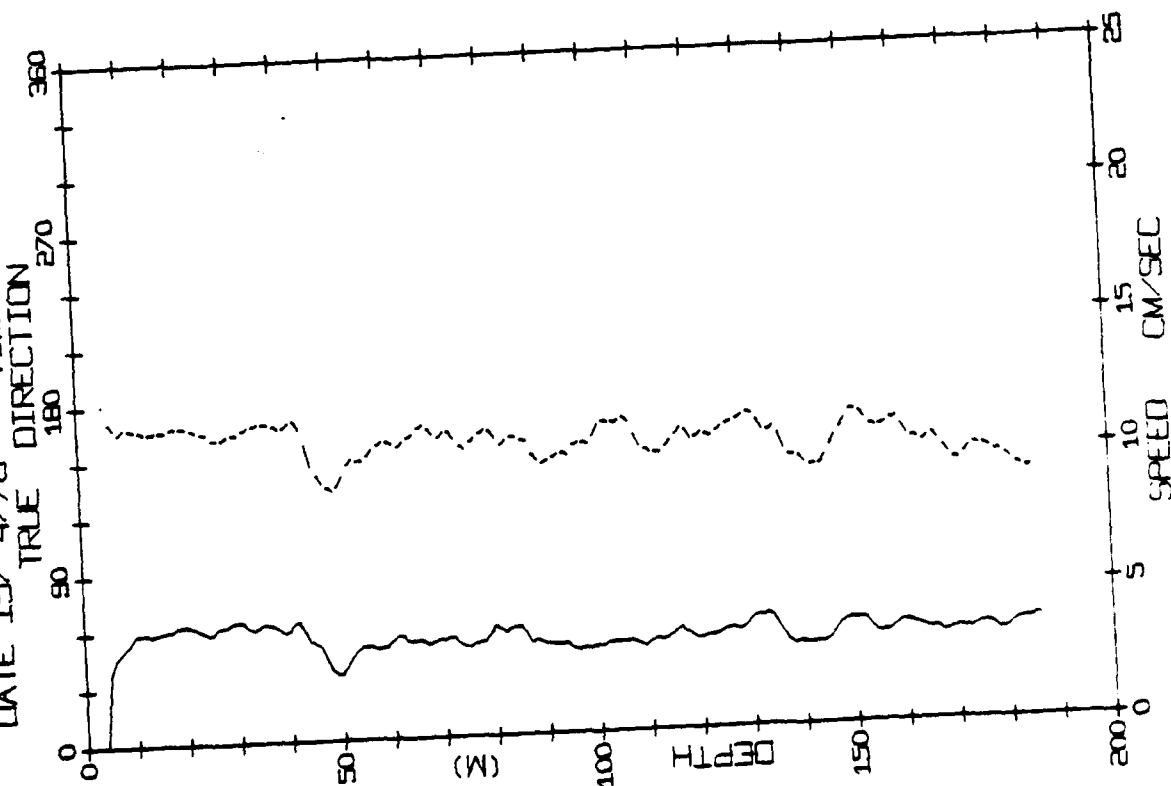


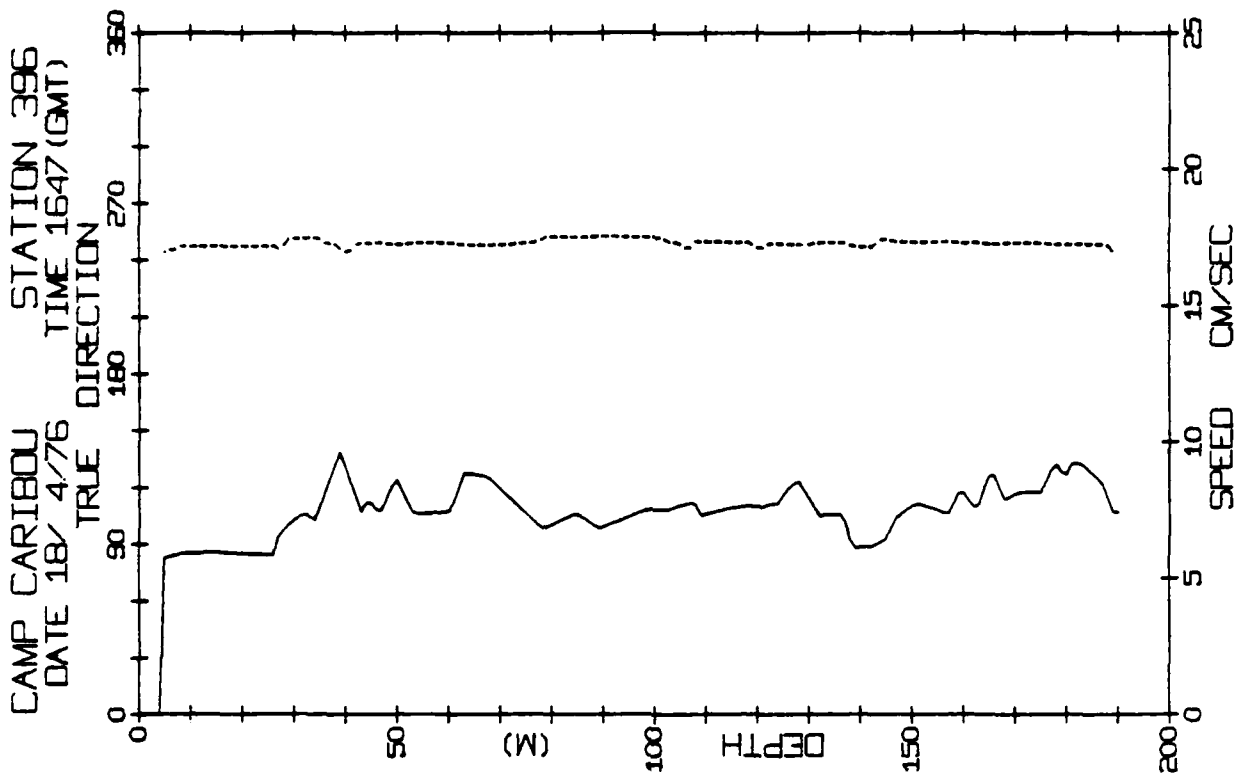
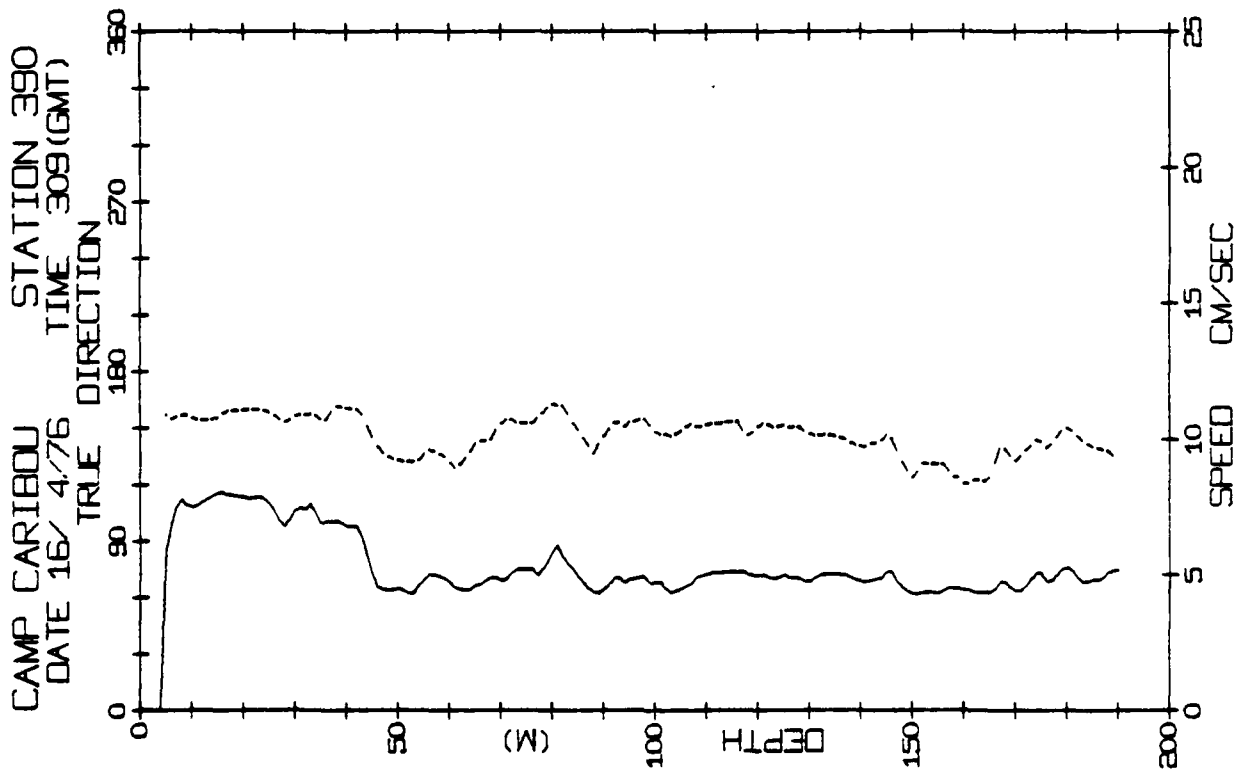


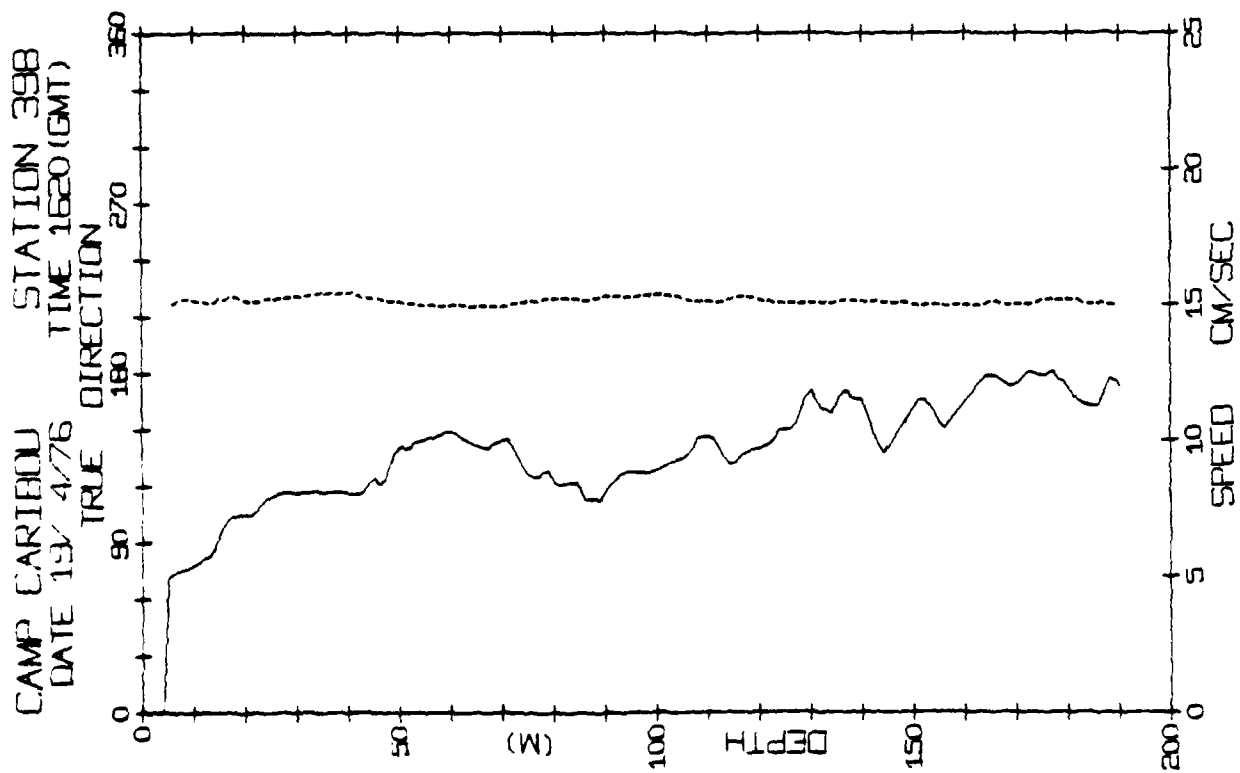
CAMP CARIBOU
DATE 15/ 4/76
STATION 389
TIME 1854 (GMT)



CAMP CARIBOU
DATE 15/ 4/76
STATION 388
TIME 806 (GMT)







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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) AIDJEX, ocean currents, Arctic Ocean, mesoscale eddies, Ekman Drift.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The oceanographic program of the 1975-1976 ARCTIC ICE DYNAMIC JOINT EXPERIMENT (AIDJEX) was designed to investigate the Arctic Ocean on space scales of 100 kilometers in the horizontal and hun- dreds of meters in the vertical. This was accomplished with oceanographic observations from a triangular array of three small- er manned satellite camps with a centrally located larger main camp. The radio call signs of the satellite camps were Caribou,		

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Blue Fox, and Snowbird, the main camp being designated Big Bear.

Profiles of relative current speed and direction were measured twice each day between the surface and 200 meters at each of the four camps. A profiling current meter (PCM) with speed, direction and depth sensors was lowered and retrieved with a multi-conductor cable at a slow rate of 5 meters per minute. Sensor signals were transmitted by cable to be recorded graphically and digitally at the surface. Digital recording of the data at a slow rate of 1 scan per half minute along with a low signal-to-noise ratio made it preferable to manually digitize the analog charts to preserve as much information as possible.

The final data set consisting of absolute velocity profiles of speed and direction was obtained by the vector addition of the relative PCM profiles with the interpolated ice velocity based on precise satellite navigation at the time of the observation. Data reduction problems included a hysteresis effect between up and down traces due to cable angle, directional spikes resulting from a rapid sensor package rotation, and spurious results when low velocities are added vectorially.

Relative speed between the ice and water in the upper mixed layer is often small indicating that this layer closely follows the ice motion. Persistent large clockwise shears in relative current direction occur sometimes in the mixed layer, attaining up to 540 degrees of rotation. These are best seen in the relative velocity data. Upon the addition of the ice velocity vector, to produce absolute velocities, the smooth relative directional shear of the Ekman spiral then exhibits local shears and speed minimums. This is due to the directions and speeds in the spiral being opposite or nearly opposite to the ice velocity vector and of comparable magnitude.

One of the most striking features of the current profiles is the appearance from time to time of swift currents below the mixed layer with speeds attaining 60 cm/sec. The depth of maximum velocity ranges from 80 to 190 meters. Although evidence of swift transient undercurrents had been observed in the Arctic Ocean as early as 1937, it was not until 1974 that these currents were shown to be associated with mesoscale eddies.

This data report deals only with the absolute velocity data obtained from the profiling current meter at Camp Caribou. PCM data for Camps Blue Fox, Snowbird and Big Bear are in separate volumes (Manley et al., 1980). Data reports pertaining to the salinity-temperature-depth (STD) data taken at the manned AIDJEX camps are also in separate volumes (Bauer et al., 1980).

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